



GAIL FARBER, Director

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
<http://dpw.lacounty.gov>

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

June 9, 2010

IN REPLY PLEASE
REFER TO FILE: **WR-4**

The Honorable Board of Supervisors
County of Los Angeles
383 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, CA 90012

Dear Supervisors:

ADOPTED

BOARD OF SUPERVISORS
COUNTY OF LOS ANGELES

#46 JUNE 9, 2010

Sachi A. Hamai
SACHI A. HAMAI
EXECUTIVE OFFICER

**WEST COAST BASIN BARRIER PROJECT TELEMTRY SYSTEM PHASE 2
AUTOMATED DATA ACQUISITION AND TELEMTRY SYSTEM
CONSULTANT SERVICES AGREEMENT
(SUPERVISORIAL DISTRICT 4)
(3 VOTES)**

**CIO RECOMMENDATION: APPROVE (X) APPROVE WITH MODIFICATION ()
DISAPPROVE ()**

SUBJECT

This action is to approve the award and delegate authorization to the Chief Engineer of the Los Angeles County Flood Control District or her designee to enter into a contract with Moore Electrical Contracting, Inc., for the installation and implementation of an Automated Data Acquisition and Telemetry System that will enable the County of Los Angeles Department of Public Works to remotely collect, store, analyze, and present status information on operational conditions at facilities associated with the West Coast Basin Barrier Project.

**IT IS RECOMMENDED THAT YOUR BOARD ACTING AS THE GOVERNING BODY
OF THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT:**

1. Award and delegate authority to the Chief Engineer or her designee, on behalf of the Los Angeles County Flood Control District, to contract with Moore Electrical Contracting, Inc., for the installation and implementation of an Automated Data Acquisition and Telemetry System for the West Coast Basin Barrier Project for a total contract amount of \$3,410,000. Funds for this

project are available in the Fiscal Year 2009-10 Flood Control District Budget. This contract will be for a period of two years commencing upon the date stipulated in the Notice to Proceed with one 1-year renewal option, not to exceed a potential maximum contract term of three years.

2. Delegate authority to the Chief Engineer or her designee to renew the contract for the additional renewal option, execute change orders for unforeseen, additional work within the scope of the contract, use contingency funds, and cancel or terminate the contract if it is in the best interest of the County to do so.

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

The purpose of the recommended actions is to install and implement an Automated Data Acquisition and Telemetry System (System) for the West Coast Basin Barrier Project (WCBBP). The WCBBP consists of a water supply distribution system and appurtenances. It also includes injection wells that pump water into the underground aquifer to prevent seawater from contaminating a source for potable water supply and a network of observation wells for monitoring groundwater quality and levels. Currently, status information on operational conditions at WCBBP injection and observation wells is collected manually which requires extensive time and coordination. The System will enable the County of Los Angeles Department of Public Works (Public Works) to remotely and more efficiently collect, store, analyze, and present status information on operational conditions at WCBBP injection and observation wells. The System will transmit the data directly to Public Works' Headquarters in real time, where engineers will be able to evaluate the information and improve the operational efficiency of the WCBBP in order to protect the groundwater from seawater intrusion.

Implementation of Strategic Plan Goals

The Countywide Strategic Plan directs the provisions of Operational Effectiveness (Goal 1) and Community and Municipal Services (Goal 3). The recommended actions will help achieve these goals by maximizing the collection of accurate and timely data to ensure that the County's groundwater supply is protected from seawater intrusion.

FISCAL IMPACT/FINANCING

There will be no impact to the County General Fund.

This work is for a total contract amount of \$3,410,000, which includes \$310,000 for contingencies that may arise during the progress of the work. Funding for this contract is available in the Fiscal Year 2009-10 Flood Control District Budget. Additional work

within this allowance will not be performed without prior written authorization from the Chief Engineer or her designee.

FACTS AND PROVISIONS/LEGAL REQUIREMENTS

The recommended contractor is Moore Electrical Contracting, Inc., located in Corona, California. This contract will commence on the date stipulated in the Notice to Proceed for a period of two years. With your Board's delegated authority, the Chief Engineer or her designee may renew the contract for one 1-year renewal option, not to exceed a potential maximum contract term of three years.

A contract approved as to form by County Counsel (Enclosure A) will be used. The Chief Information Office (CIO) Analysis, prepared by the County CIO, is enclosed for your review (Enclosure B). The recommended contract was solicited on an open-competitive basis and is in accordance with the applicable Federal, State, and County requirements. The contractor is in compliance with the requirements of the Chief Executive Officer and your Board.

The construction of the System was split into two phases. Phase 1 was awarded by your Board on March 10, 2009, for a contract amount of \$2,623,506, and completed in April 2010. It included the installation of conduits, pull boxes, and new observation well vaults. The proposed Phase 2 includes programming of commercial off-the-shelf software and the installation of cables, instrumentation, and sensors within the existing facilities constructed in Phase 1 of the project. Phase 2 requires a one-year maintenance and support period from the date of Public Works' final acceptance to ensure that all instrumentation and system components are integrated and properly functioning to assist in protecting the local sustainable water supply for the County.

The award of the contract will not result in unauthorized disclosure of confidential information and will be in full compliance with Federal, State, and County regulations. The contract contains terms and conditions supporting your Board's ordinances, policies, and programs including, but not limited to: County's Greater Avenues for Independence (GAIN) and General Relief Opportunities for Work (GROW) Programs, Board Policy No. 5.050; Contract Language to Assist in Placement of Displaced County Workers, Board Policy No. 5.110; Reporting of Improper Solicitations, Board Policy No. 5.060; Notice to Contract Employees of Newborn Abandonment Law (Safely Surrendered Baby Law), Board Policy No. 5.135; Contractor Employee Jury Service Program, Los Angeles County Code, Chapter 2.203; Notice to Employees Regarding the Federal Earned Income Credit (Federal Income Tax Law, Internal Revenue Service Notice 1015); Contractor Responsibility and Debarment, Los Angeles County Code, Chapter 2.202; the Los Angeles County's Child Support Compliance Program, Los Angeles County Code, Chapter 2.200; Defaulted Property Tax Reduction Program

Ordinance, Los Angeles County Code, Chapter 2.206; and the standard Board-directed clauses that provide for contract termination or renegotiation.

Proof of the required Comprehensive General and Automobile Liability insurance policies, naming the County as additional insured, and evidence of Workers' Compensation insurance will be obtained from the contractor before any work is assigned.

ENVIRONMENTAL DOCUMENTATION

On March 29, 2005, Item No. 65, your Board found this project categorically exempt from the provisions of the California Environmental Quality Act pursuant to Class 1, Subsection (e), of the revised County Environmental Reporting Procedures and Guidelines adopted by your Board on November 17, 1987.

CONTRACTING PROCESS

On January 28, 2010, Public Works, acting on behalf of the Los Angeles County Flood Control District, issued a Request for Proposals (RFP) to 97 firms and 46 Chambers of Commerce to install and implement a system for the WCBBP. Three firms responded to the RFP. An evaluation committee, comprised of staff from Public Works, evaluated the proposals and determined that Moore Electrical Contracting, Inc., is the most qualified and responsible proposer for this project. The evaluation was based on technical expertise, proposed work plan, experience, personnel qualifications, and understanding of the work requirements. The evaluation was completed without regard to race, creed, color, or gender.

As requested by your Board on February 3, 1998, this contract opportunity was listed on the County's "Doing Business with Us" website. A copy is enclosed for your reference (Enclosure C).

Participation by Community Business Enterprises (CBE) in the project is encouraged through Public Works' CBE Outreach Program and the requirement that consultants demonstrate their good faith efforts to utilize CBEs. Moore Electrical Contracting, Inc., is aware of Public Works' CBE Outreach Program, and its proposed CBE participation is on file with Public Works.

IMPACT ON CURRENT SERVICES (OR PROJECTS)

The implementation of Phase 2 will enable Public Works to remotely collect, store, analyze, and present status information on operational conditions at WCBBP injection and observation wells to ensure that the County's groundwater supply is protected from seawater intrusion.

CONCLUSION

Please return one adopted copy of this letter to Public Works, Water Resources Division.

Respectfully submitted,



GAIL FARBER
Director of Public Works

Reviewed by:



Richard Sanchez
Chief Information Officer

GF:MP:abc

Enclosures (3)

- c: Chief Executive Office (Lari Sheehan)
County Counsel
Executive Office
Chief Information Office (Janette Parker)
Department of Public Social Services (GAIN/GROW Program)

ENCLOSURE A

AGREEMENT FOR CONSULTANT SERVICES

THIS AGREEMENT, made and entered into this _____ day of _____, 2010.

BY AND BETWEEN

COUNTY OF LOS ANGELES, a subdivision of the State of California, hereinafter referred to as COUNTY, acting on behalf of the Los Angeles County Flood Control District, a body corporate and politic, hereinafter referred to as DISTRICT,

AND

MOORE ELECTRICAL CONTRACTING, INC., hereinafter referred to as Consultant,

COUNTY has determined that it is a matter of public convenience and necessity to engage the specialized services of a Consultant to improve the efficiency of the West Coast Basin Barrier Project by installing a state of the art Automated Data Acquisition and Telemetry System.

COUNTY is administering this AGREEMENT for DISTRICT pursuant to COUNTY of Los Angeles Charter Section 56 3/4 and the AGREEMENT between COUNTY and DISTRICT, dated December 26, 1984; and

Consultant is a firm of recognized professionals with extensive experience and training in its specialized field. In rendering these services, Consultant shall, at a minimum, exercise the ordinary care and skill expected of the average practitioner in Consultant's profession acting under similar circumstances. The work will involve the performance of professional, expert, and/or technical services of a temporary or part-time duration; and

The parties hereto do mutually agree as follows:

1. Definition

COUNTY means either COUNTY; COUNTY, as agent for such joint powers authority or nonprofit corporation as may be involved in the issuance of bonds, certificates of participation, or other evidences of indebtedness to finance the work contemplated herein; or said joint powers authority or nonprofit corporation.

2. Consultant's Services

The scope of work shall be as outlined in the Attachment dated June 9, 2010. No work shall commence on this project until a written Notice to Proceed is issued by COUNTY.

3. Consideration

In consideration of the performance by Consultant in a manner satisfactory to COUNTY of the services described in Article 2 above, including receipt and acceptance of such work by Director of the COUNTY of Los Angeles Department of Public Works (hereinafter called Director), COUNTY agrees to pay Consultant a maximum not to exceed fee of Three Million Four Hundred Ten Thousand Dollars (\$3,410,000).

Consultant shall invoice COUNTY upon the completion of tasks, subtasks, deliverables, and other additional services specified in this AGREEMENT, Scope of Work, and any change orders, as applicable, and which have been approved in writing by the COUNTY.

- a. Payments for the work accomplished shall be made upon verification and acceptance of such work by Director, as stated in the Attachment dated June 9, 2010, up to a maximum of \$3,410,000. Invoices shall be accompanied by an analysis of work completed for the invoice period. This analysis shall be prepared in a format satisfactory to Director.
- b. Supplemental Consultant Services may be required at COUNTY'S discretion, upon prior written authorization by Director, and will be based on Consultant's fee schedule on file with Director.
- c. In the event that budget reductions occur in any fiscal year covered by this AGREEMENT that may cause COUNTY to consider terminating this AGREEMENT, the COUNTY may attempt to renegotiate the terms of this AGREEMENT to reduce the cost thereof in lieu of termination under the termination provisions of the CONTRACT.
- d. All funds for payment of services rendered after June 30 of the current fiscal year are subject to COUNTY'S legislative appropriation for this purpose. Payments for services following June 30 of each fiscal year are dependent upon the same action. Notwithstanding any other provision of this AGREEMENT, COUNTY shall not be obligated for Consultant's performance hereunder or by any provision of this AGREEMENT during any of COUNTY'S future fiscal years unless and

until COUNTY'S Board of Supervisors appropriates funds for this AGREEMENT in COUNTY'S budget for each future fiscal year, and in the event that funds are not appropriated for this AGREEMENT, this AGREEMENT shall terminate as of June 30 of the last fiscal year for which funds were appropriated. COUNTY shall notify Consultant in writing of such nonappropriation of funds at the earliest possible date.

- e. Consultant will not be required to perform services which will exceed the CONTRACT amount, scope of work, and CONTRACT dates without amendment to this AGREEMENT.
Consultant will not proceed with additional services without prior written authorization. Consultant will not be paid for any expenditures beyond the CONTRACT amount stipulated without amendment to this AGREEMENT.
- f. Consultant will notify COUNTY when CONTRACT amount has been incurred up to 75% of the CONTRACT total.

4. Equipment and Supplies

Consultant agrees to furnish all necessary equipment and supplies used in the performance of the aforementioned services at Consultant's sole cost and expense.

5. COUNTY'S Responsibility

COUNTY will make available drawings, specifications, and other records as available in COUNTY Department of Public Works' file. Notwithstanding the foregoing, COUNTY does not represent the accuracy of the content of said materials.

6. COUNTY'S Representative

Director or authorized representative, shall represent COUNTY in all matters pertaining to the services to be rendered pursuant to this AGREEMENT.

7. Term and Termination

The term of this AGREEMENT shall be for a period of two years upon the date stipulated in the Notice to Proceed. At the sole discretion of the COUNTY, this AGREEMENT may be extended for one additional year, not to exceed a total contract period of three years. COUNTY may, at its sole option and discretion, cancel or terminate this AGREEMENT, without any liability other than payment for work already performed, up to the date of termination by giving three days written notice of such termination to Consultant. Consultant shall be paid the reasonable value of its services rendered. In the

event of any such termination by COUNTY, Consultant shall provide to COUNTY a termination report consisting of all drawings, specifications, reports, and data accumulated to the date of such termination in a form capable of assimilation for use by COUNTY.

8. Ownership of COUNTY Materials

a. Consultant and COUNTY agree that all materials, including but not limited to, designs, specifications, techniques, plans, reports, deliverables, data, photographs, diagrams, maps, images, graphics, text, videos, advertising, software, source codes, website plans and designs, interactive media, drafts, working papers, outlines, sketches, summaries, edited and/or unedited versions of deliverables, and any other materials or information developed under this AGREEMENT and any and all Intellectual Property rights to these materials, including any copyrights, trademarks, service marks, trade secrets, trade names, unpatented inventions, patent applications, patents, design rights, domain name rights, know-how, and any other proprietary rights and derivatives thereof, is and/or shall be the sole property of COUNTY (hereafter collectively, "COUNTY Materials"). Consultant hereby assigns and transfers to COUNTY all Consultant's right, title and interest in and to all such COUNTY Materials developed under this AGREEMENT.

Notwithstanding such COUNTY ownership in the COUNTY Materials, Consultant may retain possession of working papers and materials prepared by Consultant under this CONTRACT. During and for a minimum of five years subsequent to the term of this CONTRACT, COUNTY shall have the right to inspect any and all such working papers and materials, make copies thereof and use the working papers and materials and the information contained therein.

b. Consultant shall execute all documents requested by COUNTY and shall perform all other acts requested by COUNTY to assign and transfer to, and vest in COUNTY, all Consultant's right, title and interest in and to the COUNTY Materials, including, but not limited to, any and all copyrights, trademarks, service marks, trade names, unpatented inventions, patent applications, patents, design rights, domain name rights, know-how, and any other proprietary rights and derivatives thereof resulting from this CONTRACT. COUNTY shall have the right to register all applicable copyrights, trademarks and patents in the name of the COUNTY of Los Angeles. Further, COUNTY shall have the right to assign, license, or otherwise transfer any and all COUNTY'S rights, title and interest, including, but not limited to copyrights, trademarks, and patents, in and to the COUNTY Materials.

c. Consultant represents and warrants that the COUNTY Materials prepared herein under this AGREEMENT, is the original work of Consultant and does not infringe upon any Intellectual Property or proprietary rights of third parties. For those portions of the COUNTY Materials that are not the original work of Consultant, Consultant represents and warrants that it has secured all appropriate licenses, rights, and/or

permission from appropriate third parties to include such materials in the COUNTY Materials.

Consultant shall defend, indemnify and hold COUNTY harmless against any claims by third parties based on infringement of copyright, patent, trade secret, trademark, or any other claimed Intellectual Property or proprietary right, arising from COUNTY'S use of COUNTY Materials created and/or prepared by Consultant. Consultant will also indemnify and defend at its sole expense, any action brought against COUNTY based on a claim that COUNTY Materials furnished hereunder by Consultant and used within the scope of this AGREEMENT infringe any copyright, patent, trade secret, trademark, or any other claimed intellectual property or proprietary right of third parties, and Consultant will pay any costs, damages and attorney's fees incurred by COUNTY. COUNTY will notify Consultant promptly and in writing of any such action or claim and will permit Consultant to fully participate in the defense thereof.

d. Consultant shall affix the following notice to all COUNTY Materials: "© Copyright 2007 (or such other appropriate date of first publication), COUNTY of Los Angeles. All Rights Reserved." Consultant shall affix such notice on the title page of all images, photographs, documents and writings, and otherwise as COUNTY may direct.

e. COUNTY shall also have the sole right to control the preparation, modification, and revisions to, all acknowledgment and/or attribution language for all COUNTY Materials resulting from this AGREEMENT. COUNTY will however, honor requests by Consultant seeking removal of all acknowledgment and/or attribution language relating to the Consultant, should Consultant no longer wish to receive attribution for its work on the COUNTY Materials.

f. If directed to do so by COUNTY, Consultant will place the COUNTY name and COUNTY logo on COUNTY Materials developed under this AGREEMENT. Consultant may not however, use the COUNTY name and COUNTY logo on any other materials prepared or developed by Consultant that falls outside the scope of this AGREEMENT.

9. Indemnification and Insurance

Two alternative Indemnification and Insurance Provisions are set forth in Attachments 2 and 3 of this AGREEMENT.

Consultant has selected one of the two alternative Indemnification and Insurance Provisions and has indicated its selection by initialing the selected alternative as follows:

Alternative 1 _____

Alternative 2 _____

10. Anti-Discrimination

The following provisions are required by Section 4.32.010 et seq. of the Los Angeles COUNTY Code:

Consultant certifies and agrees that all persons employed by Consultant, its affiliates, subsidiaries, or holding companies are, and will be, treated equally by Consultant without regard to or because of race, religion, ancestry, national origin, or sex, and in compliance with state and Federal anti-discrimination laws. Consultant further certifies and agrees that it will deal with its subconsultants, bidders, and vendors without regard to or because of race, religion, ancestry, national origin, or sex. Consultant agrees to allow access to its employment records during regular business hours to verify compliance with the foregoing provisions when so requested by COUNTY.

Consultant specifically recognizes and agrees that if COUNTY finds that any of the foregoing provisions have been violated, the same shall constitute a material breach of CONTRACT upon which COUNTY may determine to cancel, terminate, or suspend the CONTRACT. While COUNTY reserves the right to determine individually that the anti-discrimination provision of the CONTRACTS have been violated, in addition, a determination by the California Fair Employment Practices Commission or the Federal Equal Employment Opportunity Commission that Consultant has violated state or Federal anti-discrimination laws shall constitute a finding by COUNTY that Consultant has violated the anti-discrimination provisions of the CONTRACT.

At its option, and in lieu of canceling, terminating, or suspending the CONTRACT, COUNTY may impose damages for any violation of the anti-discrimination provisions of this paragraph, in the amount of Two Hundred Dollars (\$200) for each violation found and determined. COUNTY and Consultant specifically agree that the aforesaid amount shall be imposed as liquidated damages, and not as a forfeiture or penalty. It is further specifically agreed that the aforesaid amount is presumed to be the amount of damages sustained by reason of any such violation, because from the circumstances and the nature of the violation, it is impracticable and extremely difficult to fix actual damages.

11. Independent Contractor Status

This AGREEMENT is by and between COUNTY of Los Angeles and Consultant and is not intended, and shall not be construed, to create the relationship of agent, servant, employee, partnership, joint venture, or association, as between COUNTY and Consultant.

Consultant understands and agrees that all persons furnishing services to COUNTY pursuant to this AGREEMENT are, for purposes of Workers' Compensation liability, employees solely of Consultant and not of COUNTY.

Consultant shall bear the sole responsibility and liability for furnishing workers' compensation benefits to any person for injuries arising from, or connected with, services performed on behalf of Consultant pursuant to this AGREEMENT.

12. COUNTY'S Quality Assurance Plan

COUNTY, or its agent, will evaluate Consultant's performance under this AGREEMENT on not less than an annual basis. Such evaluation will include assessing Consultant's compliance with all CONTRACT terms and performance standards. Consultant deficiencies which COUNTY determines are severe or continuing, and that may place performance of the AGREEMENT in jeopardy if not corrected, will be reported to the Board of Supervisors. The report will include improvement/corrective action measures taken by COUNTY and Consultant. If improvement does not occur consistent with the corrective action measures, COUNTY may terminate this AGREEMENT or impose other penalties as specified in this AGREEMENT.

13. Assignment

This AGREEMENT shall not be assigned without the prior written consent of COUNTY. Any attempt to assign without such consent shall be void and confer no rights on any third parties.

14. Forum Selection

Consultant hereby agrees to submit to the jurisdiction of the courts of the State of California. The exclusive venue of any action brought by Consultant, on Consultant's behalf or on the behalf of any subconsultant, which arises from this AGREEMENT or is concerning or connected with services performed pursuant to this AGREEMENT, shall be deemed to be in the courts of the State of California located in Los Angeles COUNTY, California.

15. Conflict of Interest

No COUNTY employee in a position to influence the award of this AGREEMENT or any competing AGREEMENT, and no spouse or economic dependent of such employee, shall be employed in any capacity by Consultant herein, or have any other direct or indirect financial interest in this AGREEMENT.

16. Prohibition from Involvement in Bidding Process

Consultant understands and agrees that neither it nor its subsidiaries shall be involved in any way in the bidding process on any Request for Proposal developed or

prepared by or with the assistance of Consultant's services rendered pursuant to this AGREEMENT, either as a prime Consultant or subconsultant, or as a Consultant to any other prime Consultant or subconsultant. Any such involvement by Consultant shall result in the rejection by the COUNTY of the bid by the prime Consultant in question.

17. Lobbying

Consultant and each COUNTY lobbyist or COUNTY lobbying firm as defined in Los Angeles COUNTY Code Section 2.160.010, retained by Consultant, shall fully comply with COUNTY Lobbyist Ordinance, Los Angeles COUNTY Code Chapter 2.160. Failure on the part of Consultant or any COUNTY lobbyist or COUNTY lobbying firm retained by Consultant to fully comply with COUNTY Lobbyist Ordinance shall constitute a material breach of this CONTRACT, upon which COUNTY may immediately terminate or suspend this CONTRACT.

18. Gratuities

It is improper for any COUNTY officer, employee, or agent to solicit consideration, in any form, from Consultant with the implication, suggestion, or statement that Consultant's provision of the consideration may secure more favorable treatment for Consultant in the award of the CONTRACT or that Consultant's failure to provide such consideration may negatively affect COUNTY'S consideration of Consultant's submittal. Consultant shall not offer or give, either directly or through an intermediary, consideration, in any form, to a COUNTY officer, employee, or agent for the purpose of securing favorable treatment with respect to the award of the CONTRACT.

Consultant shall immediately report any attempt by a COUNTY officer, employee, or agent to solicit such improper consideration. The report shall be made either to COUNTY manager charged with the supervision of the employee, or to COUNTY Auditor-Controller's Employee Fraud Hotline at (213) 974-0914 or (800) 544-6861. Failure to report such a solicitation may result in Consultant's submittal being eliminated from consideration.

Among other items, such improper consideration may take the form of cash, discounts, service, the provision of travel or entertainment, or tangible gifts.

19. Employment of Laid-Off COUNTY Employees

Should Consultant, or any subconsultant performing more than \$250,000 of the CONTRACT value, require additional or replacement personnel to perform services under this CONTRACT other than the performance of a skilled trade, Consultant shall give first consideration for such employment openings to qualified COUNTY employees who are targeted for layoff or qualified former COUNTY employees who are on a re-employment

list.

20. Consultant's Warranty of Adherence to COUNTY'S Child Support Compliance Program

Consultant acknowledges that COUNTY has established a goal of ensuring that all individuals who benefit financially from COUNTY through CONTRACT are in compliance with their court-ordered child, family, and spousal support obligations in order to mitigate the economic burden otherwise imposed upon COUNTY and its taxpayers.

As required by COUNTY'S Child Support Compliance Program (COUNTY Code Chapter 2.200) and without limiting Consultant's duty under this CONTRACT to comply with all applicable provisions of law, Consultant warrants that it is now in compliance and shall during the term of this CONTRACT maintain compliance with employment and wage reporting requirements as required by the Federal Social Security Act (42 USC Section 653a) and California Unemployment Insurance Code Section 1088.5, and shall implement all lawfully served Wage and Earnings Withholding Orders or DISTRICT Attorney Notices of Wage and Earnings Assignment for Child or Spousal Support, pursuant to Code of Civil Procedure Section 706.031 and Family Code Section 5246(b).

Failure of Consultant to maintain compliance with these requirements shall constitute a default by Consultant under this CONTRACT. Without limiting the rights and remedies available to COUNTY under any other provision of this CONTRACT, failure to cure such default within 90 days of notice by the Los Angeles COUNTY Child Support Services Department shall be grounds upon which COUNTY Board of Supervisors may terminate this CONTRACT.

21. Consultant's Acknowledgment of COUNTY'S Commitment to Child Support Enforcement

Consultant acknowledges that COUNTY places a high priority on the enforcement of child support laws and the apprehension of child support evaders. Consultant understands that it is COUNTY'S policy to encourage all COUNTY consultants to voluntarily post COUNTY'S L.A.'s Most Wanted: Delinquent Parents poster in a prominent position at Consultant's place of business. COUNTY'S DISTRICT Attorney will supply Consultant with the poster to be used.

22. Termination for Improper Consideration

COUNTY may, by written notice to Consultant, immediately terminate the right of Consultant to proceed under this AGREEMENT if it is found that consideration, in any form, was offered or given by Consultant, either directly or through an intermediary, to

any COUNTY officer, employee, or agent with the intent of securing the AGREEMENT or securing favorable treatment with respect to the award, amendment, or extension of the AGREEMENT or the making of any determinations with respect to Consultant's performance pursuant to the AGREEMENT. In the event of such termination, COUNTY shall be entitled to pursue the same remedies against Consultant as it could pursue in the event of default by Consultant.

Consultant shall immediately report any attempt by a COUNTY officer or employee to solicit such improper consideration. The report shall be made either to COUNTY manager charged with the supervision of the employee or to COUNTY Auditor-Controller's Employee Fraud Hotline at (213) 974-0914 or (800) 544-6861.

Among other items, such improper consideration may take the form of cash, discounts, service, the provision of travel or entertainment, or tangible gifts.

23. Consideration of GAIN/GROW Program Participants for Employment

Should Consultant require additional or replacement personnel after the effective date of this AGREEMENT, Consultant shall give consideration for any such employment openings to participants in COUNTY'S Department of Public Social Services' Greater Avenues for Independence (GAIN) or General Relief Opportunity for Work (GROW) Program who meet Consultant's minimum qualifications for the open position. COUNTY will refer GAIN/GROW participants by job category to Consultant.

24. Notice to Employees Regarding the Federal Earned Income Credit

Consultant shall notify its employees, and shall require each subconsultant to notify its employees, that they may be eligible for the Federal Earned Income Credit under the Federal income tax laws. Such notice shall be provided in accordance with the requirement set forth in Internal Revenue Service Notice 1015.

25. Reduction of Solid Waste

Consistent with the Board of Supervisors' policy to reduce the amount of solid waste deposited at the COUNTY landfills, the Consultant agrees to use recycled-content paper to the maximum extent possible on the project.

26. COUNTY Rights

The COUNTY may employ, either during or after performance of this CONTRACT, any right of recovery the COUNTY may have against the Consultant by any means it deems appropriate including, but not limited to, set-off, action at law or in equity, withholding, recoupment, or counterclaim. The rights and remedies of the COUNTY under

this CONTRACT are in addition to any right or remedy provided by California law.

27. Fair Labor Standards Act

Consultant shall comply with all applicable provisions of the Federal Fair Labor Standards Act, and shall indemnify, defend, and hold harmless COUNTY, its agents, officers, and employees from any and all liability including, but not limited to, wages, overtime pay, liquidated damages, penalties, court costs, and attorneys' fees arising under any wage and hour law including, but not limited to, the Federal Fair Labor Standards Act for services performed by Consultant's employees for which COUNTY may be found jointly or solely liable.

28. Prevailing Wage Requirements

Consultant must comply with all applicable prevailing wage requirements. The subject project is a public work as defined in Section 1720 of the California Labor Code.

29. Employment Eligibility Verification

Consultant warrants that it fully complies with all Federal statutes and regulations regarding employment of aliens and others, and that all its employees performing services hereunder meet the citizenship or alien status requirements contained in Federal statutes and regulations. Consultant shall obtain, from all covered employees performing services hereunder, all verifications and other documentation of employment eligibility status required by Federal statutes and regulations as they currently exist and as they may be hereafter amended. Consultant shall retain such documentation for all covered employees for the period prescribed by law. Consultant shall indemnify, defend, and hold harmless COUNTY, its officers, and employees from employer sanctions and any other liability which may be assessed against Consultant or COUNTY in connection with any alleged violation of Federal statutes or regulations pertaining to the eligibility for employment of persons performing services under this AGREEMENT.

30. Consultant Responsibility and Debarment

a. A responsible Consultant is a Consultant who has demonstrated the attribute of trustworthiness, as well as quality, fitness, capacity, and experience to satisfactorily perform the CONTRACT. It is the COUNTY'S policy to conduct business only with responsible consultants.

b. The Consultant is hereby notified that, in accordance with Chapter 2.202 of the COUNTY Code, if the COUNTY acquires information concerning the performance of the Consultant on this or other CONTRACTS which indicates that the

Consultant is not responsible, the COUNTY may, in addition to other remedies provided in the CONTRACT, debar the Consultant from bidding or proposing on, or being awarded, and/or performing work on COUNTY CONTRACTS for a specified period of time, which generally will not exceed five years but may exceed five years or be permanent if warranted by the circumstances, and terminate any or all existing CONTRACTS the Consultant may have with the COUNTY.

c. The COUNTY may debar a Consultant if the Board of Supervisors finds, in its discretion, that the Consultant has done any of the following: (1) violated a term of a CONTRACT with the COUNTY or a nonprofit corporation created by the COUNTY; (2) committed an act or omission which negatively reflects on the Consultant's quality, fitness or capacity to perform a CONTRACT with the COUNTY, any other public entity, or a nonprofit corporation created by the COUNTY, or engaged in a pattern or practice which negatively reflects on same; (3) committed an act or offense which indicates a lack of business integrity or business honesty, or (4) made or submitted a false claim against the COUNTY or any other public entity.

d. If there is evidence that the Consultant may be subject to debarment, the Department will notify the Consultant in writing of the evidence which is the basis for the proposed debarment and will advise the Consultant of the scheduled date for a debarment hearing before the Contractor Hearing Board.

e. The Contractor Hearing Board will conduct a hearing where evidence on the proposed debarment is presented. The Consultant and/or the Consultant's representative shall be given an opportunity to submit evidence at that hearing. After the hearing, the Contractor Hearing Board shall prepare a tentative proposed decision, which shall contain a recommendation regarding whether the Consultant should be debarred, and, if so, the appropriate length of time of the debarment. The Consultant and the Department shall be provided an opportunity to object to the tentative proposed decision prior to its presentation to the Board of Supervisors.

f. After consideration of any objections, or if no objections are submitted, a record of the hearing, the proposed decision and any other recommendation of the Contractor Hearing Board shall be presented to the Board of Supervisors. The Board of Supervisors shall have the right to modify, deny or adopt the proposed decision and recommendation of the Hearing Board.

g. If the Consultant has been debarred for a period longer than five years, that Consultant may, after the debarment has been in effect for at least five years, submit a written request for review of the debarment determination to reduce the period of debarment or terminate the debarment. The COUNTY may, in its discretion, reduce the period of debarment or terminate the debarment if it finds that the Consultant has adequately demonstrated one or more of the following: (1) elimination of the grounds for which the debarment was imposed; (2) a bona fide change in ownership or management; (3) material evidence discovered after debarment was imposed; or (4) any other reason that is in the best interests of the COUNTY.

h. The Contractor Hearing Board will consider a request for review of a debarment determination only where (1) the Consultant has been debarred for a period longer than five years; (2) the debarment has been in effect for at least five years; and (3) the request is in writing, states one or more of the grounds for reduction of the debarment period or termination of the debarment, and includes supporting documentation. Upon receiving an appropriate request, the Contractor Hearing Board will provide notice of the hearing on the request. At the hearing, the Contractor Hearing Board shall conduct a hearing where evidence on the proposed reduction of debarment period or termination of debarment is presented. This hearing shall be conducted and the request for review decided by the Contractor Hearing Board pursuant to the same procedures as for a debarment hearing.

The Contractor Hearing Board's proposed decision shall contain a recommendation on the request to reduce the period of debarment or terminate the debarment. The Contractor Hearing Board shall present its proposed decision and recommendation to the Board of Supervisors. The Board of Supervisors shall have the right to modify, deny, or adopt the proposed decision and recommendation of the Contractor Hearing Board.

i. These terms shall also apply to subconsultants of COUNTY Consultants.

31. Compliance with Jury Service Program

This CONTRACT is subject to provisions of the COUNTY'S ordinance entitled Contractor Employee Jury Service (Jury Service Program) as codified in Sections 2.203.010 through 2.203.090 of the Los Angeles COUNTY Code.

a. Unless Consultant has demonstrated to the COUNTY'S satisfaction either that Consultant is not a Consultant as defined under the Jury Service Program (Section 2.203.020 of the COUNTY Code) or that Consultant qualifies for an exception to the Jury Service Program (Section 2.203.070 of the COUNTY Code), Consultant shall have and adhere to a written policy that provides that its Employees shall receive from the Consultant, on an annual basis, no less than five days of regular pay for actual jury service. The policy may provide that Employees deposit any fees received for such jury service with the Consultant or that the Consultant deduct from the Employee's regular pay the fees received for jury service.

b. For purposes of this Section, Consultant means a person, partnership, corporation or other entity which has a CONTRACT with the COUNTY or a subcontract with a COUNTY Consultant and has received or will receive an aggregate sum of \$50,000 or more in any 12-month period under one or more COUNTY CONTRACTS or subcontracts. Employee means any California resident who is a full-time employee of Consultant. Full-time means 40 hours or more worked per week, or a lesser number of hours if: 1) the lesser number is a recognized industry standard as determined by the COUNTY, or 2)

Consultant has a long-standing practice that defines the lesser number of hours as full-time. Full-time employees providing short-term, temporary services of 90 days or less within a 12-month period are not considered full-time for purposes of the Jury Service Program. If Consultant uses any subconsultant to perform services for the COUNTY under the CONTRACT, the subconsultant shall also be subject to the provisions of this Section. The provisions of this Section shall be inserted into any such subcontract AGREEMENT and a copy of the Jury Service Program shall be attached to the AGREEMENT.

c. If Consultant is not required to comply with the Jury Service Program when the CONTRACT commences, Consultant shall have a continuing obligation to review the applicability of its exception status from the Jury Service Program, and Consultant shall immediately notify COUNTY if Consultant at any time either comes within the Jury Service Program's definition of Consultant or if Consultant no longer qualifies for an exception to the Program. In either event, Consultant shall immediately implement a written policy consistent with the Jury Service Program. The COUNTY may also require, at any time during the CONTRACT and at its sole discretion, that Consultant demonstrate to the COUNTY'S satisfaction that Consultant either continues to remain outside the Jury Service Program's definition of Consultant and/or that Consultant continues to qualify for an exception to the Program.

d. Consultant's violation of this Section of the CONTRACT may constitute a material breach of the CONTRACT. In the event of such material breach, COUNTY may, in its sole discretion, terminate the Consultant and/or bar Consultant from the award of future COUNTY CONTRACTS for a period of time consistent with the seriousness of the breach.

32. No Payment for Services Provided Following Expiration/Termination of AGREEMENT

Consultant shall have no claim against COUNTY for payment for any money or reimbursement, of any kind whatsoever, for any service provided by Consultant after the expiration or other termination of this AGREEMENT. Should Consultant receive any such payment it shall immediately notify COUNTY and shall immediately repay all such funds to COUNTY. Payment by COUNTY for services rendered after expiration/termination of this AGREEMENT shall not constitute a waiver of COUNTY'S right to recover such payment from Consultant. This provision shall survive the expiration or other termination of this AGREEMENT.

33. Notice to Employees Regarding the Safely Surrendered Baby Law

The Consultant shall notify and provide to its employees, and shall require each subconsultant to notify and provide to its employees, a fact sheet regarding the Safely Surrendered Baby Law, its implementation in Los Angeles COUNTY, and how to safely

surrender a baby. The fact sheet is available on the Internet at www.babysafela.org for printing purposes.

The Consultant acknowledges that the COUNTY places a high priority on the implementation of the Safely Surrendered Baby Law. The Consultant understands that it is the COUNTY'S policy to encourage all COUNTY Consultants to voluntarily post the COUNTY'S, A Safely Surrendered Baby Law poster, in a prominent position at the Consultant's place of business. The COUNTY'S Department of Children and Family Services will supply the Consultant with the poster to be used.

34. Consultant Assignment

a. Consultant shall not assign its rights or delegate its duties under the AGREEMENT, or both, whether in whole or in part, without the prior written consent of COUNTY, in its discretion, and any attempted assignment or delegation without such consent shall be null and void. For purposes of this paragraph, COUNTY consent shall require a written amendment to the AGREEMENT, which is formally approved and executed by the parties. Any payments by COUNTY to any approved delegate or assignee on any claim under the AGREEMENT shall be deductible, at COUNTY'S sole discretion, against the claims which Consultant may have against COUNTY.

b. Shareholders, partners, members, or other equity holders of Consultant may transfer, sell, exchange, assign, or divest themselves of any interest they may have therein. However, in the event any such sale, transfer, exchange, assignment, or divestment is effected in such a way as to give majority control of Consultant to any person(s), corporation, partnership, or legal entity other than the majority controlling interest therein at the time of execution of the AGREEMENT, such disposition is an assignment requiring the prior written consent of COUNTY in accordance with applicable provisions of this AGREEMENT.

c. Any assumption, assignment, delegation, or takeover of any of the Consultant's duties, responsibilities, obligations, or performance of same by any entity other than the Consultant, whether through assignment, subcontract, delegation, merger, buyout, or any other mechanism, with or without consideration for any reason whatsoever without COUNTY'S express prior written approval, shall be a material breach of the AGREEMENT which may result in the termination of the AGREEMENT. In the event of such termination, COUNTY shall be entitled to pursue the same remedies against Consultant as it could pursue in the event of default by Consultant.

35. Contractor's Warranty of Compliance with County's Defaulted Property Tax Reduction Program

Contractor acknowledges that COUNTY has established a goal of ensuring

that all individuals and businesses that benefit financially from COUNTY through contract are current in paying their property tax obligations (secured and unsecured roll) in order to mitigate the economic burden otherwise imposed upon COUNTY and its taxpayers.

Unless contractor qualifies for an exemption or exclusion, contractor warrants and certifies that to the best of its knowledge it is now in compliance, and during the term of this contract will maintain compliance, with Los Angeles County Code Chapter. 2.206.

36. Termination for Breach of Warranty to Maintain Compliance with COUNTY'S Defaulted Property Tax Reduction Program

Failure of contractor to maintain compliance with the requirements set forth in "Contractor's Warranty of Compliance with COUNTY'S Defaulted Property Tax Reduction Program" shall constitute default under this contract. Without limiting the rights and remedies available to COUNTY under any other provision of this contract, failure of contractor to cure such default within 10 days of notice shall be grounds upon which COUNTY may terminate this contract and/or pursue debarment of contractor, pursuant to County Code Chapter 2.206.

37. Maintenance & Support

Refer to Exhibit D (attached).

38. Relevant Software Definitions and Provisions

Refer to Exhibit G (attached).

39. Task/Deliverable Acceptance Certificate

Refer to Exhibit E (attached).

40. Third Party Software

Refer to Exhibit F (attached).

41. Dispute Resolution Procedure

CONTRACTOR and COUNTY agree to act immediately to mutually resolve any disputes that may arise with respect to the AGREEMENT. All such disputes shall be subject to the provisions described herein and collectively referred to as the "Dispute Resolution Procedures." The parties agree that time is of the essence in the resolution of disputes.

CONTRACTOR and COUNTY agree that the existence and details of a dispute notwithstanding, both parties shall continue without delay their performance hereunder, except for any performance, other than payment by COUNTY for approved

Work, that COUNTY, in its discretion, determines should be delayed as a result of such dispute.

If CONTRACTOR fails to continue without delay its performance hereunder that COUNTY, in its discretion, determines should not be delayed as a result of such dispute, then any additional costs which may be incurred by CONTRACTOR or COUNTY as a result of CONTRACTOR'S failure to continue to so perform shall be borne by CONTRACTOR, and CONTRACTOR shall make no claim whatsoever against COUNTY for such costs. CONTRACTOR shall promptly reimburse COUNTY for such COUNTY costs, as determined by COUNTY, or COUNTY may deduct or offset all such additional costs from any amounts due to CONTRACTOR from COUNTY.

If COUNTY fails to continue without delay to perform its responsibilities under the AGREEMENT which COUNTY, in its discretion, determines should not be delayed as a result of such dispute, then any additional costs incurred by CONTRACTOR or COUNTY as a result of COUNTY'S failure to continue to so perform shall be borne by COUNTY, and COUNTY shall make no claim whatsoever against CONTRACTOR for such costs. COUNTY shall promptly reimburse CONTRACTOR for all such additional CONTRACTOR costs subject to the approval of such costs by COUNTY.

In the event of any dispute between the parties with respect to the AGREEMENT, CONTRACTOR and COUNTY shall submit the matter to their respective Project Managers for the purpose of endeavoring to resolve such dispute.

If the Project Managers are unable to resolve the dispute within a reasonable time, not to exceed five (5) working days from the date of submission of the dispute, then the matter immediately shall be submitted to the parties' respective Project Directors for further consideration and discussion to attempt to resolve the dispute.

If the Project Directors are unable to resolve the dispute within a reasonable time not to exceed five (5) working days from the date of submission of the dispute, then the matter shall be immediately submitted to the COUNTY'S Assistant Deputy Director of the Water Resources Division and CONTRACTOR'S Vice President. These persons shall have five (5) working days to attempt to resolve the dispute.

If the COUNTY'S Assistant Deputy Director of the Water Resources Division and the CONTRACTOR'S Vice President are unable to resolve the dispute within a reasonable time not to exceed five (5) working days from the date of submission of the dispute, then the matter shall be immediately submitted to CONTRACTOR'S President and the Director, but not to Director's designee. These persons shall have five (5) working days to attempt to resolve the dispute.

In the event that at these levels, there is not a resolution of the dispute acceptable to both parties, then each party may assert its other rights and remedies provided under the AGREEMENT and its rights and remedies as provided by law.

All disputes utilizing the Dispute Resolution Procedures shall be documented in writing by each party and shall state the specifics of each alleged dispute and all actions taken. The parties shall act in good faith to resolve all disputes. At all four (4) levels described in this Dispute Resolution Procedure, the efforts to resolve a dispute shall be undertaken by conference between the parties' respective representatives, either orally, by face-to-face meeting or by telephone, or in writing by exchange of correspondence.

42. Confidentiality

Contractor shall maintain the confidentiality of all records and information, proprietary information, software codes, trade secrets, confidential information, etc., whether of County or third parties, in accordance with all applicable Federal, State and local laws, rules, regulations, ordinances, directives, guidelines, policies and procedures relating to confidentiality, including, without limitation, County policies concerning information technology security and the protection of confidential records and information.

Contractor shall not compromise, appropriate, nor misappropriate in any way any proprietary information, of County or of any third parties, related in any way to the project, including but not limited to all records, information, proprietary information, software codes, trade secrets, confidential information, etc.

Contractor shall indemnify, defend, and hold harmless County, its officers, employees, and agents, from and against any and all claims, demands, damages, liabilities, losses, costs and expenses, including, without limitation, defense costs and legal, accounting and other expert, consulting, or professional fees, arising from, connected with, or related to any failure by Contractor, its officers, employees, agents, or subcontractors, to comply with this paragraph, as determined by County in its sole judgment. Any legal defense pursuant to Contractor's indemnification obligations under this paragraph shall be conducted by Contractor and performed by counsel selected by Contractor and approved by County. Notwithstanding the preceding sentence, County shall have the right to participate in any such defense at its sole cost and expense, except that in the event Contractor fails to provide County with a full and adequate defense, as determined by County in its sole judgment, County shall be entitled to retain its own counsel, including, without limitation, County Counsel, and reimbursement from Contractor for all such costs and expenses incurred by County in doing so. Contractor shall not have the right to enter into any settlement, agree to any injunction, or make any admission, in each case, on behalf of County without County's prior written approval.

Contractor shall inform all of its officers, employees, agents and subcontractors providing services hereunder of the confidentiality provisions of this Contract.

43. Subcontracting

a. Nothing contained in this AGREEMENT or otherwise, shall create any contractual relation between the COUNTY and any subconsultants, and no subcontract

shall relieve the CONSULTANT of their responsibilities and obligations herein. The CONSULTANT agrees to be as fully responsible to the COUNTY for the acts and omissions of its subconsultants and of persons either directly or indirectly employed by any of them as it is for the acts and omissions of persons directly employed by the CONSULTANT. The CONSULTANT's obligation to pay its subconsultants is an independent obligation from the COUNTY's obligation to make payments to the CONSULTANT.

b. Any subcontract entered into as a result of this AGREEMENT shall contain all of the provisions of this section.

c. The CONSULTANT shall perform the work contemplated with resources available within its own organization; and no portion of the work pertinent to this contract shall be subcontracted without written authorization by the COUNTY, except that, which is expressly identified in the approved cost proposal.

d. Any subcontract in excess of \$25,000 entered into as a result of this contract, shall contain all the provisions stipulated in this contract to be applicable to subconsultants.

e. Any substitution of subconsultants must be approved in writing by the COUNTY.

f. CONSULTANT shall pay its subconsultants within ten (10) calendar days from receipt of each payment made to the CONSULTANT by the COUNTY.

44. Notices

Any notice required or desired to be given pursuant to this AGREEMENT shall be given in writing and addressed as follows:

COUNTY

Department of Public Works
Architectural Engineering Division
CONTRACTS & Operations, 8th Floor
900 South Fremont Avenue
Alhambra, CA 91803
(626) 458-5114

CONSULTANT

Moore Electrical Contracting, Inc.
463 North Smith Avenue
Corona, CA 92880
(951) 371-4202
(951) 4296 (fax)

The address for notice may be changed by giving notice pursuant to this paragraph.

45. Entire AGREEMENT

This CONTRACT constitutes the entire AGREEMENT between COUNTY and Consultant and may be modified only by further written AGREEMENT between the parties hereto.

IN WITNESS WHEREOF, the COUNTY has, by order of its Board of Supervisors, caused these presents to be subscribed by the Director of the Department of Public Works, and the Consultant has hereunto subscribed its corporate name and affixed its corporate seal by its duly authorized officers the day, month, and year herein first above written.

COUNTY OF LOS ANGELES
Acting on behalf of the Los Angeles
County Flood Control District

MOORE ELECTRICAL CONTRACTING, INC.

By _____
Deputy Director
Department of Public Works

By _____
President

By _____
Secretary

APPROVED AS TO FORM:

ANDREA SHERIDAN ORDIN
County Counsel

By _____
Deputy

P:\aepub\CONTRACTS\Grace\WCBBP Phase 2\Consultant Services Agreement w IT provisions_042810.doc

ACKNOWLEDGMENT

State of California

County of _____)

On _____ before me, _____
(insert name and title of the officer)

personally appeared _____,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing
paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

June 9, 2010

ATTACHMENT

WEST COAST BASIN BARRIER PROJECT TELEMTRY SYSTEM PHASE 2 AUTOMATED DATA ACQUISITION AND TELEMTRY SYSTEM MOORE ELECTRICAL CONTRACTING, INC.

The services to be rendered by the Consultant shall be as described in the Consultant's proposal dated March 23, 2010 (attached), except to the extent it is inconsistent with this attachment, and the terms of the Agreement. The services shall consist of all such services as are customarily rendered when providing professional services of this type, and shall include, but not be limited to the following:

SCOPE OF SERVICES

Consultant shall provide all necessary labor, materials, and equipment to improve the efficiency of the West Coast Basin Barrier Project by installing a state of the art Automated Data Acquisition and Telemetry System as described in the Consultant's proposal dated March 23, 2010.

SCHEDULE OF SERVICES

The Consultant will be given a Notice to Proceed by Public Works prior to commencement of services. The Contract term will be for two years with an option to extend the Contract for one additional year. The 2-year Contract term includes the maintenance and support period (1 year to complete Tasks 1-14 indicated in the Scope of Work (attached); 1 year of maintenance and support). All work shall be completed within 730 calendar days after issuance of the Notice to Proceed.

COMPENSATION

Compensation for these services shall be for a not to exceed fee of \$3,410,000. This amount includes \$3,100,000 for services as described in the attached Consultant's proposal, and \$310,000 for unforeseen conditions and/or additional work that may arise during the progress of the work. Consultant will be compensated based on milestone deliverables and upon approval by Public Works. Consultant will be compensated for additional copies of reports and any other written requests outside of the scope of services. Additional work shall not be performed without written authorization from the County. The Consultant agrees that should work be performed outside the Scope of Work and without Public Works' prior written approval, such work shall be deemed a gratuitous effort by the Consultant, and the Consultant shall have no claim, therefore, against the County. Invoices shall conform to Public Works' invoicing instructions. Mileage is not reimbursable.

Payment for consultant services performed shall include a ten percent (10%) retention. Payment requests equal to ninety percent (90%) of consultant services performed during the previous 30 days or since the last payment request shall be submitted by the Consultant to the County for payment. A payment request for the ten (10%) withheld from the task/deliverable payments shall be submitted by the Consultant upon

completion of the one-year Maintenance and Support period, which will commence after achievement of Final Acceptance.

A payment request for the ten percent (10%) withheld from the payments shall be submitted by the Consultant upon completion and acceptance by the County of all consultant services performed under the original Contract.

Attach.



March 23, 2010

"Energized for Excellence"

Mr. Eric Batman
Project Manager
County of Los Angeles
Department of Public Works
900 South Fremont Avenue
Alhambra, CA 91803-1331

Subject: Fee Proposal for;

Consultant Services to install, as per plan, the West Coast Basin Barrier Project
Telemetry System - Phase II

Dear Mr. Batman,

As requested, we are pleased to submit our proposal and preliminary project schedule for the above referenced project. Our attached proposal is itemized by task and by the firm assigned that task be it Moore Electric, Leed Electric or Soffa Electric. The task breakout is for budget purposes only and is not intended to affect the not-to-exceed overall contract amount. Further detail includes the listing of required materials and equipment for each task and the cost associated with same including reasonable mark-up. At this time we have not included any optional work items identified in the RFP.

Based on our understanding of the RFP and our subsequent conversations concerning clarification, we submit our total base contract amount of \$3,100,000 and a contingency of \$310,000 which yields a total Not To Exceed amount of \$3,410,000. It is understood that the purpose of the contingency funds are primarily for adding optional wells to the Telemetry System. It is acknowledged that LA County administration approval is required before start of any work involving optional wells and contingency funds.

The proposed preliminary schedule is driven by the stated availability of critical custom built equipment provided by Soffa Electric and essential to the prerequisite task stated in the schedule. We estimate our final acceptance will be in 42 weeks after NTP. A 52 week Maintenance Period will began after final acceptance. We may be able to shorten this time, with the County's quick return on submittals and favorable conditions.

Should you have questions pertaining to this proposal please contact me, Rodger Moore, at your convenience.

Sincerely,


Rodger Moore
Project Manager

Lic.#610362

[illegible]

West Coast Basin Barrier Project: Telemetry System - Phase II

Schedule of Task Resource Allocation

West Coast Basin Barrier Project Telemetry System - Phase II													Moore Electrical Contracting, Inc.										LEED Electric, Inc.										Safe Electric																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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West Coast Basin Barrier Project Telemetry System - Phase II																																WEEK
Task 5E	L-1	Installation of all sensors																														
	L-1	Installation and Testing of Communication Cables																														
	L-3	Calibration																														
Task 5F	L-1	Sensors and Communication Cable Installation, Calibration and Testing																														
	L-1	Installation of all sensors																														
	L-3	Calibration																														
Task 6A	M-1	Automated Data and Control System Installation, Programming and Testing																														
	M-2	Installation and wiring of RIO(s) and appearances in El Segundo Yard, WBMWD																														
	M-3	Programming of RIO(s) and appearances in the City of El Segundo Yard, WBMWD																														
Task 6B	M-1	Testing, documentation and demonstration of functionality for RIO(s) and appearances in the City of El Segundo Yard, WBMWD																														
	M-1	Automated Data and Control System Installation, Programming and Testing																														
	M-2	Installation and wiring of RIO(s) and appearances in Manhattan Beach																														
Task 6C	M-1	Programming of RIO(s) and appearances Manhattan Beach																														
	M-2	Testing, documentation and demonstration of functionality for RIO(s) and appearances in Manhattan Beach																														
	M-3	Automated Data and Control System Installation, Programming and Testing																														
Task 6D	M-1	Installation and wiring of RIO(s) and appearances in Hermosa Beach																														
	M-2	Programming of RIO(s) and appearances Hermosa Beach																														
	M-3	Testing, documentation and demonstration of functionality for RIO(s) and appearances in Hermosa Beach																														
Task 6E	M-1	Automated Data and Control System Installation, Programming and Testing																														
	M-2	Installation and wiring of RIO(s) and appearances in Redondo Beach																														
	M-3	Programming of RIO(s) and appearances Redondo Beach																														
Task 6F	M-1	Testing, documentation and demonstration of functionality for RIO(s) and appearances in Redondo Beach																														
	M-1	Automated Data and Control System Installation, Programming and Testing																														
	M-2	Installation and wiring of PLC and appearances in Redondo Beach Yard																														
Task 6G	M-1	Programming of PLC and appearances Redondo Beach Yard																														
	M-2	Testing, documentation and demonstration of functionality for PLC and appearances in Redondo Beach Yard																														
	M-3	Automated Data and Control System Installation, Programming and Testing																														
Task 6H	M-1	Installation and wiring of RIO(s) and appearances in Torrance																														
	M-2	Programming of RIO(s) and appearances Torrance																														
	M-3	Testing, documentation and demonstration of functionality for RIO(s) and appearances in Torrance																														

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ALTERNATIVE 1

INDEMNIFICATION AND INSURANCE PROVISIONS

I. INDEMNIFICATION

To the fullest extent permitted by law, Consultant shall indemnify, defend, and hold harmless COUNTY, its agents, appointed and elected officers, COUNTY Special DISTRICTS, and employees from and against any and all liability, expense (including defense costs and legal fees), lawsuits, actions, claims, proceedings, and damages of any nature whatsoever, including without limitation, brought for or on account of bodily injury, death, personal injury, or property damage (including property of Consultant), which arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of Consultant, its officers, agents, employees, representatives, contractors, subcontractors, consultants, or subconsultants of any tier.

The foregoing paragraph notwithstanding, Consultant further shall indemnify, defend, and hold harmless COUNTY, its agents, appointed and elected officers, COUNTY Special DISTRICTS, and employees from and against any Workers' Compensation suits, liability, or expense arising from, or connected with, any services performed pursuant to this AGREEMENT on behalf of Consultant by any person.

Neither the Consultant, nor its agents and subconsultants of any tier, shall be obligated to indemnify the COUNTY and its related persons and entities for liabilities caused by the active negligence of the COUNTY and its related persons and entities. However, this provision does not limit any obligation to insure and defend the COUNTY and its related persons and entities arising under the policies of insurance maintained by the Consultant under this provision.

II. INSURANCE

Without limiting Consultant's indemnification of COUNTY and during the term of this AGREEMENT, Consultant shall provide and maintain, at its own expense, the following programs of insurance. Such programs and evidence of insurance shall be satisfactory to the COUNTY and primary to, and not contributing with, any other insurance maintained by the COUNTY. Certificate(s) or other evidence of coverage shall be delivered to the Department of Public Works, Architectural Engineering Division, 900 South Fremont Avenue, 8th Floor, Alhambra, CA 91803, prior to commencing services under this AGREEMENT, shall specifically identify this AGREEMENT, and shall contain the express condition that COUNTY is to be given written notice by registered mail at least thirty (30) days in advance of any modification or termination of insurance.

Failure by Consultant to procure and maintain the required insurance shall constitute a material breach of contract upon which COUNTY may immediately terminate or suspend this AGREEMENT.

A. Liability:

Such insurance shall be endorsed naming the COUNTY of Los Angeles as an additional insured and shall include:

1. General liability insurance written on a commercial general liability form or on a comprehensive general liability form covering the hazards of premises/operations, contractual, independent contractors, advertising, products/completed operations, broad form property damage, and personal injury with a combined single limit of not less than One Million Dollars (\$1,000,000) per occurrence.
 - a. If written with an annual aggregate limit, the policy limit should be three (3) times the above-required occurrence limit.
 - b. If written on a Claims Made Form, the Consultant shall be required to provide an extended two-year reporting period commencing upon termination or cancellation of this AGREEMENT.
2. Comprehensive auto liability for all owned, non-owned, and hired vehicles with a combined single limit of not less than One Million Dollars (\$1,000,000) per occurrence.

B. Workers' Compensation:

Insurance in an amount and form to meet all applicable requirements of the Labor Code of the State of California, including Employer's Liability with a One Million Dollar (\$1,000,000) limit, covering all persons the Consultant is legally required to cover.

C. Professional Liability:

Insurance covering liability arising from any error, omission, or negligent act of the Consultant, its officers, or employees with a limit of liability of not less than One Million Dollars (\$1,000,000) per claim or occurrence, and Two Million Dollars (\$2,000,000) in aggregate. If written on a Claims Made Form, Consultant shall continue to provide coverage for this project for a period of two (2) years from the date of termination or completion of this AGREEMENT.

Consultant agrees to the above Indemnification and Insurance Provisions.

Initials

ALTERNATIVE 2

INDEMNIFICATION AND INSURANCE PROVISIONS

A. **INSURANCE**: Consultant shall, at its own expense, maintain with insurance companies acceptable to the COUNTY general liability, professional liability, comprehensive automobile liability, and workers' compensation insurance as set forth below:

1. **General Liability Insurance**: The Consultant shall maintain general liability insurance written on a commercial or comprehensive general liability form(s) that include(s) coverage for premises-operations, products/completed operations, contractual liability, broad-form property damage, and personal injury liability. The general liability policy shall have a combined single limit of not less than One Million Dollars (\$1,000,000) per occurrence.
2. **Professional Liability Insurance**: Consultant shall maintain professional liability insurance, including contractual liability coverage, with policy limits of at least One Million Dollars (\$1,000,000) per claim or occurrence and Two Million Dollars (\$2,000,000) in the aggregate.
3. **Comprehensive Automobile Insurance**: The Consultant shall maintain automobile insurance for all owned, non-owned, and hired vehicles with a combined single limit of One Million Dollars (\$1,000,000) per occurrence or accident.
4. **Workers' Compensation Insurance**: The Consultant shall maintain workers' compensation insurance in an amount and form which will meet all applicable requirements of the Labor Code of the State of California, including Employers' Liability Coverage with limits of One Million Dollars (\$1,000,000) per occurrence.
5. **General Conditions Relating to Insurance**:
 - a. **Additional Insureds**: The COUNTY, DISTRICT, its agents, appointed and elected officers, COUNTY Special DISTRICTS, and employees ("COUNTY and its related persons and entities") shall be named as additional insureds on each policy, except workers' compensation and professional liability insurance, the Consultant is required to provide under this AGREEMENT. Such insurance shall be primary to, and not contributing with, any other insurance maintained by or for the COUNTY and its related persons and entities.
 - b. **Waiver of Subrogation**: Each policy obtained by the Consultant to fulfill its obligations under this provision shall contain a provision waiving the right of the insurer to subrogate against the COUNTY and its related persons and entities for any liability covered by the policy.

c. **Claims Made Policies**: If any of the policies obtained by the Consultant to fulfill its obligations under this provision are written on a claims-made basis, the policy shall be endorsed to provide an extended reporting period of not less than two years following the termination of this AGREEMENT or the Consultant's work on the project referred to in this AGREEMENT, whichever is later.

d. **Occurrence Policies**: If any of the policies obtained by the Consultant to fulfill its obligations under this provision are written on an occurrence basis, the policies and any endorsements required by this provision (including, but not limited to, the additional insured endorsements) shall be maintained in full force and effect for a period of not less than two years following the termination of this AGREEMENT or the Consultant's work on the project referred to in this AGREEMENT, whichever is later.

e. **Certificate of Insurance**: Prior to commencing work on the project referred to in this AGREEMENT, the Consultant shall provide to the COUNTY certificate(s) of insurance identifying the insurers, policies, coverages, and limits of liability for the insurance the Consultant is required to provide under this provision. Accompanying the certificate(s) shall be a copy of the required additional insured endorsement(s) to the policies obtained by the Consultant as set forth above.

f. **Notice of Cancellation or Nonrenewal**: Each policy shall require the insurer to give the COUNTY at least 30 days notice of termination of the policy by cancellation, rescission, nonrenewal, or otherwise. Notice shall also be given to COUNTY of any material change in the terms of the coverage required to be maintained by the Consultant under this provision.

g. **Delivery of Notices**: All certificates and notices required by this provision shall be in writing and shall be delivered to the Department Contract Administrator. The notices and certificates shall refer to this contract.

h. **Maintenance of Insurance**: The Consultant shall promptly pay the premiums on all insurance policies required under this provision. The Consultant further agrees that the policies shall remain in full force and effect as required by this AGREEMENT. Consultant shall immediately obtain replacement coverage for any policy which is terminated, canceled, non-renewed, or which has paid policy limits, or upon the insolvency of the insurer issuing the policy.

i. **Breach**: Failure on the part of Consultant to procure or maintain insurance as required by this provision shall constitute a material breach of this contract. In the event of such a breach, the COUNTY may, among other things, terminate

this AGREEMENT, suspend work being performed on the project by or on behalf of the Consultant, or at its sole discretion, the COUNTY may obtain replacement coverage. In the event that replacement coverage is obtained, the Consultant shall, upon demand, repay the COUNTY for the full amount of premiums paid by the COUNTY for the replacement coverage. In its sole discretion, the COUNTY may offset the cost of premiums against any monies due to the Consultant from the COUNTY.

B. **INDEMNIFICATION:** To the fullest extent permitted by law, Consultant shall indemnify, defend, and hold harmless the COUNTY, DISTRICT, its agents, appointed and elected officers, COUNTY Special DISTRICTS, and employees ("COUNTY and its related persons and entities") from any and all claims, liabilities, expenses (including defense costs and legal fees), lawsuits, actions, proceedings, and damages of any nature whatsoever, including without limitation, brought for or on account of bodily injury, death, personal injury, or property damage (including property of Consultant), which arise out of, pertain to, or related to the negligence, recklessness or willful misconduct of the Consultant, its officers, agents, employees, representatives, contractors, subcontractors, consultants, or subconsultants of any tier. The obligation to indemnify the COUNTY is in addition to the obligation to procure insurance as set forth in this provision.

COUNTY agrees that prior to demanding a defense from the Consultant, that it or Consultant shall tender such claim to the insurers issuing the policies of insurance referred to in this provision. If the claims are not covered by any policy referred to in this provision, or the insurers fail or refuse to defend or indemnify the COUNTY or any of its related persons and entities, then the Consultant's duty to defend, indemnify and hold harmless the COUNTY under the foregoing indemnity provision shall apply in full.

Neither the Consultant, nor its agents and subconsultants of any tier, shall be obligated to indemnify the COUNTY and its related persons and entities for liabilities caused by the active negligence of the COUNTY and its related persons and entities. However, this provision does not limit any obligation to insure and defend the COUNTY and its related persons and entities arising under the policies of insurance maintained by the Consultant under this provision.

C. **SUBCONSULTANTS' INSURANCE AND INDEMNIFICATION:** Consultant shall require subcontractors, subconsultants, and independent contractors to maintain the same insurance coverage which it is required to maintain under this provision, including but not limited to, the obligation to name the COUNTY and its related persons and entities as additional insureds under each such policy.

Consultant further shall require its contractors, subcontractors, consultants, and subconsultants, to indemnify and defend the COUNTY and its related persons and entities from any and all claims, liabilities, expenses, lawsuits, actions, or proceedings arising out of, pertaining to, or relating to the negligence, recklessness, or willful misconduct of each contractor, subcontractor, consultant, subconsultant, or any tier.

Failure on the part of Consultant to require its subcontractors, subconsultants, and independent contractors to provide insurance and indemnification shall constitute a material breach of this contract. In the event of such breach, the COUNTY may, among other things, terminate this AGREEMENT, suspend work being performed on the project by or on behalf of the Consultant, or in its sole discretion, the COUNTY may obtain replacement insurance coverage. In the event that replacement coverage is obtained, the Consultant shall, upon demand, repay the COUNTY for the full amount of premiums paid by the COUNTY for the replacement coverage. In its sole discretion, the COUNTY may offset the cost of premiums against any monies due to the Consultant from the COUNTY.

Consultant agrees to the above Indemnification and Insurance Provisions.

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Exhibit A

SCOPE OF WORK

WEST COAST BASIN BARRIER TELEMETRY SYSTEM

SECTION 1 – GENERAL INFORMATION AND REQUIREMENTS

A. WORK ORGANIZATION

A - 1 GENERAL

The organization and payment of the work shall be divided into each individual deliverable as listed in Section T, Schedule of Tasks and Deliverables. Each task requires a completely constructed telemetry system that is properly functioning according to the contract objectives within all the cities. Generally, each task shall be performed similarly with some variations as described in this Scope of Work; Exhibit B, Plans; and any other reference cited herein. The Contractor is responsible for organizing the work according to the specified task.

A - 2 REQUIRED AND OPTIONAL WELLS

Required wells are denoted on Exhibit B, Plans, and in Table C – 1.2 (a). Optional wells are designated by an asterisk (i.e. *). Depending on funding, none, some, or all of the optional wells may be included in the ADATS. Optional wells shall not be added in the ADATS without prior written authorization from the Contract Manager. For optional wells authorized by the Contract Manager, each completed optional well configuration shall be fully compatible with and integrated into the entire ADATS.

B. WORK LOCATION

The work shall be performed in the following cities:

City of El Segundo, Thomas Brother Map Pages 732, G2, G3. Exhibit B, Plans, sheets 4-15.

City of Manhattan Beach, Thomas Brother Map Pages 732, G4, G5, F5, F6, G6, and G7. Exhibit B, Plans, sheets 16-26.

City of Hermosa Beach, Thomas Brother Map Pages 732, G7; 762, G1, H1, H2, H3, and J3. Exhibit B, Plans, sheets 27-36.

City of Redondo Beach, Thomas Brother Map Pages 762, J3; 763, A3, A4, A5, A6, and A7; 793, A1. Exhibit B, Plans, sheets 37-63.

City of Torrance, Thomas Brother Map Page 793, A2. Exhibit B, Plans, sheets 64-67.

C. SCOPE AND CONTROL OF WORK

C - 1 WORK DESCRIPTION

C - 1.1 General

Without limiting the other specifications and requirements set forth in this Scope of Work, the contractor shall meet the following requirements.

Furnish, install, connect, configure, and develop the telemetry system on the WCBBP as indicated in Exhibit B, Plans. The completed telemetry system shall provide both local and remote monitoring capabilities of specific conditions of the entire barrier system. All accessories required for satisfactory installation and operation of the equipment in order to meet the objective of the telemetry system as described herein shall be furnished and installed whether or not explicitly mentioned in this Scope of Work or shown on Exhibit B, Plans.

The contractor is responsible for the manufacture delivery and installation of all necessary hardware, software, programming, and other project components. All components shall have standard modular, and scalable properties, shall utilize commercial off-the-shelf products, such that the telemetry system is consistent with industry standards, can have a flexible arrangement, and can be easily expanded upon if necessary in the future.

The telemetry system shall be installed to operate in harsh outdoor environments without auxiliary heating and cooling systems. The telemetry system shall be designed to operate and monitor 24 hours per day, unattended, with operator attention required only periodically. Operator intervention requirements shall be limited to analyzed collected data as desired, modifying system timing, and responding to malfunction alarms.

The telemetry system shall accommodate potential modifications or future expansions if deemed necessary. Such modification shall not require additional software or central hardware.

The completed telemetry system shall provide real-time data monitoring every 15 minutes (with synchronized reporting by all equipment), present the data in a user-friendly interface similar to

the existing WinCC Suite software screens, and allow for quick data manipulation and analysis. All software configurations and hardware, and all installation thereof, shall be similar and compatible to that installed on the Alamitos Barrier telemetry system and Dominguez Gap Barrier telemetry system.

All work shall be performed in accordance with this Scope of Work, Exhibit B, Plans, the approved working and shop drawings, and any other supporting documents later incorporated into the project Scope of Work.

C - 1.2 Performance Criteria

The system shall be fully capable of monitoring the conditions of the barrier facilities identified on Table C – 1.2(a) and in subsection C - 2, Plans and Specifications. Table C – 1.2(a) describes the well and facility components that will be monitored by the system. The wells denoted by an asterisk (*) are to be incorporated into the Scope of Work with approval from the Contract Manager as an optional task as described in subsection A-2, Required and Optional Wells. The following is a list of data that will be monitored by the system.

Injection Wells

1. Water Levels
2. Flow Rates
3. Well Head Pressures
4. Vault Floodings
5. Packer Pressures (Dual injection wells with packers)
6. Pipeline Pressures

Observation Wells

1. Water Levels

TABLE C – 1.2 (a) FACILITY INFORMATION				
PLC & RIO PANEL	CITY LOCATION	WELL NUMBER	FACILITY/WELL TYPE	SITE TYPE
RIO-ESY	EL SEGUNDO		Flow Meter Flow Meter Flow Meter Flow Meter Flow Meter Flow Meter High Side Pressure Low Side Pressure	Unit 2 WBMWD Total WBMWD North WBMWD South WB 28 (MWD) WB 28A (El Segundo) Pressure Reducing Vault Pressure Reducing Vault
RIO-4T	EL SEGUNDO	4T 4TW	Dual Multiple	Injection Well Observation Well
RIO-4W	EL SEGUNDO	4W*	Dual	Injection Well
RIO-4Z	EL SEGUNDO	4WZ 4Z	Dual Dual	Observation Well Injection Well
RIO-5B*	EL SEGUNDO	5B* 5CF	Dual Dual	Injection Well Observation Well
RIO-5E	EL SEGUNDO	5E*	Single	Injection Well
RIO-5H	EL SEGUNDO	5H	Dual	Injection Well
RIO-5L1	EL SEGUNDO	5HL 5L1 5M1*	Dual Dual Dual	Observation Well Injection Well Injection Well
RIO-5R	EL SEGUNDO	5PR	Dual	Observation Well
	MANHATTAN BEACH	5R	Dual	Injection Well
RIO-5U	MANHATTAN BEACH	5U	Dual	Injection Well
RIO-5W	MANHATTAN BEACH	5UW 5W 5WX	Dual Dual Dual	Observation Well Injection Well Observation Well
RIO-5X*	MANHATTAN BEACH	5X*	Dual	Injection Well
RIO-5Y	MANHATTAN BEACH	5Y	Single	Injection Well
RIO-6A	MANHATTAN BEACH	5YA 6A	Single Single	Observation Well Injection Well
RIO-6B	MANHATTAN BEACH	6AB 6B 6BE1	Single Single Single	Observation Well Injection Well Observation Well
RIO-6E	MANHATTAN BEACH	6E 6EH2* 6EH3	Single Single Single	Injection Well Observation Well Observation Well
RIO-6I2	MANHATTAN BEACH	6H2 6I2*	Single Single	Injection Well Injection Well
RIO-6L	HERMOSA BEACH	6IK2 6K* 6L 6LB	Single Single Single Single	Observation Well Injection Well Injection Well Observation Well
RIO-7B*	HERMOSA BEACH	7B*	Single	Injection Well
RIO-7E	HERMOSA BEACH	7BE0.1 7E	Single Single	Observation Well Injection Well

TABLE C – 1.2 (a)				
FACILITY INFORMATION				
PLC & RIO PANEL	CITY LOCATION	WELL NUMBER	FACILITY/WELL TYPE	SITE TYPE
		7EG	Single	Observation Well
RIO-7G	HERMOSA BEACH	7G	Single	Injection Well
RIO-7L*	HERMOSA BEACH	7L*	Single	Injection Well
RIO-7N	HERMOSA BEACH	7LN	Single	Observation Well
		7N	Single	Injection Well
		7P'2	Dual	Observation Well
RIO-7S	HERMOSA BEACH	7S	Single	Injection Well
		7SV	Single	Observation Well
RIO-7V	HERMOSA BEACH	7V	Single	Injection Well
RIO-7Z	HERMOSA BEACH	7Z	Single	Injection Well
		7ZA	Single	Observation Well
RIO-8A	HERMOSA BEACH	7ZA1	Dual	Observation Well
		8A	Single	Injection Well
		8AD	Dual	Observation Well
PLC-RY	REDONDO BEACH	8D	Flow Meter	Unit 1
		8D1	Single	Injection Well
			Single	Injection Well
RIO-8F2	REDONDO BEACH	8DF	Single	Observation Well
		8F1*	Dual	Observation Well
		8F*	Single	Injection Well
		8F2	Single	Injection Well
RIO-8G*	REDONDO BEACH	8G	Single	Injection Well
		8GJ	Single	Observation Well
		8DJ	Single	Observation Well
RIO-8J1	REDONDO BEACH	8J	Single	Injection Well
		8J1	Single	Injection Well
		8K	Single	Injection Well
		8KK1	Single	Observation Well
		8JL	Single	Observation Well
RIO-8M	REDONDO BEACH	8K1	Single	Injection Well
		8L	Single	Injection Well
		8LM	Single	Observation Well
		8M	Single	Injection Well
		8M2	Single	Injection Well
		8M1*	Single	Injection Well
RIO-8N	REDONDO BEACH	8M1N	Single	Observation Well
		8N*	Dual	Injection Well
		8P	Single	Injection Well
		8P2*	Single	Injection Well
		8NQ	Single	Observation Well
		8P1	Single	Injection Well
RIO-8S*	REDONDO BEACH	8QR	Single	Observation Well
		8R*	Single	Injection Well
		8R1*	Single	Injection Well
		8S	Single	Injection Well
		8SS1	Single	Observation Well
		8S1	Dual	Injection Well
		8T*	Single	Injection Well
RIO-8U	REDONDO BEACH	8S1V	Single	Observation Well
		8TU	Single	Observation Well
		8U	Single	Injection Well

TABLE C – 1.2 (a)				
FACILITY INFORMATION				
PLC & RIO PANEL	CITY LOCATION	WELL NUMBER	FACILITY/WELL TYPE	SITE TYPE
		8V*	Single	Injection Well
		8V1	Single	Injection Well
		8V1W	Single	Observation Well
		8VX	Single	Observation Well
RIO-8X*	REDONDO BEACH	8W	Single	Injection Well
		8WX	Single	Observation Well
		8X*	Dual	Injection Well
		8XY	Single	Observation Well
		8Y*	Single	Injection Well
RIO-8Y1	REDONDO BEACH	8YY1	Single	Observation Well
		8XZ	Single	Observation Well
		8Y1	Single	Injection Well
		8Y1Z	Single	Observation Well
		8Z	Single	Injection Well
		8ZA	Single	Observation Well
		9A*	Single	Injection Well
RIO-9C	REDONDO BEACH	8ZC	Single	Observation Well
		9AB	Single	Observation Well
		9B	Single	Injection Well
		9BC	Single	Observation Well
		9C	Dual	Injection Well
		9CC1	Single	Observation Well
RIO-9D1*	REDONDO BEACH	9C1*	Single	Injection Well
		9C1D	Single	Observation Well
		9CE	Single	Observation Well
		9D*	Single	Injection Well
		9D1	Single	Injection Well
		9DE*	Single	Observation Well
		9E*	Single	Injection Well
		9EF	Dual	Observation Well
		9F*	Single	Injection Well
RIO-9G	REDONDO BEACH	9EG	Single	Observation Well
		9G0.7*	Single	Observation Well
		9G	Dual	Injection Well
		9G1*	Dual	Injection Well
		9GJ	Single	Observation Well
RIO-9K*	REDONDO BEACH	9J*	Single	Injection Well
		9J1	Single	Injection Well
		9K	Single	Injection Well
		9KM	Single	Observation Well
RIO-9N*	REDONDO BEACH	9M1	Single	Injection Well
		9KN	Single	Observation Well
		9M*	Single	Injection Well
		9N*	Dual	Injection Well
		9P	Single	Injection Well
RIO-9R	REDONDO BEACH	9NQ	Single	Observation Well
		9Q*	Single	Injection Well
		9R*	Dual	Injection Well
		9RT	Single	Observation Well
RIO-9U	REDONDO BEACH	9T*	Single	Injection Well
		9T1	Single	Injection Well
		9RU*	Single	Observation Well
		9T0.8*	Single	Observation Well
		9U*	Single	Injection Well

TABLE C – 1.2 (a) FACILITY INFORMATION				
PLC & RIO PANEL	CITY LOCATION	WELL NUMBER	FACILITY/WELL TYPE	SITE TYPE
		9UV*	Single	Observation Well
		9V	Single	Injection Well
RIO-9X*	REDONDO BEACH	9V1*	Single	Injection Well
		9X1	Single	Injection Well
		9X*	Dual	Injection Well
		9XY1*	Dual	Observation Well
		9XY*	Single	Observation Well
		9Y1	Single	Injection Well
RIO-10A	REDONDO BEACH	9Y2*	Single	Injection Well
		9XA	Single	Observation Well
		9Y	Single	Injection Well
		10A	Dual	Injection Well
		10AC	Single	Observation Well
		10B*	Single	Injection Well
RIO-10F	REDONDO BEACH	10C*	Single	Injection Well
		10D*	Dual	Injection Well
		10DF	Single	Observation Well
		10E	Single	Injection Well
		10F	Single	Injection Well
		10DG	Single	Observation Well
RIO-10L	REDONDO BEACH	10G*	Dual	Injection Well
		10GJ	Single	Observation Well
		10J	Single	Injection Well
		10J1	Single	Injection Well
		10L	Dual	Injection Well
		10LM	Dual	Observation Well
RIO-10P*	REDONDO BEACH	10LP	Single	Observation Well
		10M	Single	Injection Well
	TORRANCE	10N	Single	Injection Well
		10P	Single	Injection Well
		10PQ	Single	Observation Well
		10PU	Single	Observation Well
RIO-10S*	TORRANCE	10Q1	Single	Injection Well
		10Q*	Single	Injection Well
		10S	Single	Injection Well
		10QU	Single	Observation Well
		10SU	Single	Observation Well

*Denotes additional wells to be included in the System as an Optional Task (see subsection A-2), as approved by the Contract Manager.

The system shall be fully compatible with WinCC Suite software Version 6.0 and the telemetry server currently in use at Public Works' Headquarters Building and at other facilities utilizing Siemens equipment.

The system shall operate both automatically on a scheduled frequency and manually as required to fulfill the needs of Public Works.

1. Data Storage: The monitored data shall be automatically stored and transmitted to Public Works Headquarters central computer as well as the WBMWD every 15 minutes.
2. Transmission: The transmission path method shall be as shown on Exhibit B, Sheet 3, and as described in subsection C - 2, Plans and Specifications, and subsection M-2, Products.
3. Alarms: The system shall be capable of triggering alarms based on user configurable threshold limits of any instrument reading or calculated value. The system shall accommodate system additions to call County of Los Angeles Department of Public Works (Public Works) dispatch and Public Works' Flood Maintenance Division (FMD) in the occurrence of an alarm. Also, the Alarm system shall incorporate the existing Dominguez Gap and Alamitos telemetry systems as well as the new WCBBP ADATS. Please reference subsection M - 2.7.
4. Display: The system shall display both the current and historical trending in a graphical user interface as provided by the existing telemetry server located in the Public Works Headquarters Building.

C - 2 PLANS AND SPECIFICATIONS

C - 2.1 General

The contractor shall keep at the jobsite a copy of this Scope of Work and Exhibit B, Plans, at all times.

This Scope of Work and Exhibit B, Plans are intended to be complementary and cooperative. Anything specified in this Scope of Work and not shown on Exhibit B, Plans, or vice versa, shall be as though shown on or specified in both.

Exhibit B, Plans, shall be supplemented by such working drawings and shop drawings as are necessary to adequately control the work.

The contractor shall ascertain the existence of any conditions affecting the cost of the work through a reasonable prior examination of the jobsite.

The contractor shall, upon discovering any error or omission in this Scope of Work or Exhibit B, Plans immediately call it to the attention of the Contract Manager.

C - 2.2 Plans

Exhibit B, Plans includes the following which show the location, character, dimensions or details of the work:

1. WCBBP Telemetry System Design City of Torrance.
2. WCBBP Telemetry System Design City of Redondo Beach.
3. WCBBP Telemetry System Design City of Hermosa Beach.
4. WCBBP Telemetry System Design City of Manhattan Beach.
5. WCBBP Telemetry System Design City of El Segundo.
6. WCBBP Telemetry System Cover Sheet, Table of Contents, Overall System Architecture and Instrumentation Diagrams and Construction Details.

C - 2.3 Specifications

The work shall be performed or executed in accordance with this Scope of Work.

C - 3 RIGHT OF WAY / WORK BOUNDARY

The contractor shall perform the work within the limits of Public Works' right of way. The system is to be installed in the location as described on Exhibit B, Plans. The work boundary is defined as the boundary within which the contractor shall perform the work. Unless otherwise provided, the contractor shall make arrangements, pay for, and assume all responsibility for acquiring, using, and disposing of additional work area and facilities temporarily required. The contractor shall indemnify and hold harmless from all claims for damages caused by such actions.

C - 4 INSPECTION

The work is subject to inspection and approval by the Contract Manager. The contractor shall notify the Contract Manager before noon of the working day before inspection is required. Unless otherwise authorized, the work shall be done in the presence of the Contract Manager or the Public Works representative authorized by the Contract Manager. Any work done without proper inspection will be subject to rejection. The

Contract Manager and any authorized representatives shall at all times have access to the work during its construction at shops and yards as well as the jobsite. The contractor shall provide every reasonable facility for ascertaining that the materials and workmanship are in accordance with these specifications. Inspection of the work shall not relieve the contractor of the obligation to fulfill all conditions of the Contract.

D. CHANGES IN WORK

The contractor shall execute work to completion regardless of changes in required materials, equipment, personnel, other pertinent resources, and in field and working conditions throughout the duration of this Contract. The contractor shall implement sound construction and engineering judgment in meeting the project objectives. Public Works anticipates the judicious execution of the work to meet those objectives.

The contractor shall prudently project any foreseeable changes in work to meet the objective of this Scope of Work. The contractor shall be responsible for the cost of such changes.

Where unforeseeable changes occur during the execution of work the contractor shall, before proceeding with work, provide all relevant evidence that such changes are required to practically meet the objective of this Scope of Work for approval by the Contract Manager. If and only when the Contract Manager approves the unforeseeable change in work, Public Works shall reimburse the contractor in such amounts as it deems appropriate for the work that has been changed. The contractor shall provide the Contract Manager with receipts, bills, invoices, and the like for proper justification of said reimbursement.

E. PRODUCT DELIVERY, STORAGE, AND HANDLING

E - 1 PROTECTION

Contractor shall protect equipment during transportation and installation; provide proper coverage to prevent damage due to weather conditions; store at a secure site to mitigate against theft or vandalism; and replace damaged materials. Stored materials shall be reasonably accessible for inspection.

The contractor may store equipment, materials, and pertinent components for the system at the following locations:

- 1) El Segundo Yard
2122 El Segundo Boulevard
El Segundo, CA 90245

- 2) Redondo Yard
615 Anita Street
Redondo Beach, CA 90278

The contractor shall coordinate any and all use of these facilities with the appropriate field superintendents.

If additional storage is required for the project, the contractor shall ensure that such facilities are secured prior to commencement of work.

E - 2 INSPECTION

All materials intended for use on this project are subject to inspection. Contractor shall make all materials available for inspection by authorized Public Works representatives.

F. EXECUTION OF WORK

To minimize public inconvenience, possible hazards, and to restore street and other work areas to their original condition and state of usefulness as soon as practicable, the contractor shall diligently execute the work to completion. If the Contract Manager determines that the contractor is failing to execute the work to the proper extent, the contractor shall, upon orders from the Contract Manager, immediately take steps to remedy the situation.

F - 1 WORKING DAY

A working day is any day within the period when the Notice to Proceed is issued and the date provided for completion. Days that are not considered working days are as follows:

1. Saturday
2. Sunday
3. Any day designated as a holiday by Public Works.
4. Any day designated as a holiday in a Master Labor Agreement entered into by the contractor.

G. RESPONSIBILITIES OF THE CONTRACTOR

Contractor shall provide new components that shall be in working order at time of installation and testing.

Contractor shall perform testing to ensure that the system functions and the Automated Data Acquisition occurs as per this Scope of Work.

Contractor shall provide software and hardware that will be compatible with Public Works existing Siemens WinCC V6.0 application.

Contractor shall install and configure all deployed hardware and software in a manner consistent with good security practices to mitigate unauthorized access to any installed component or system. This includes but may not be limited to ethernet wireless radios, ethernet switches, PLC devices, SCADA alarm management software, etc.

G - 1 REQUIREMENTS AND REGULATORY AGENCIES

G - 1.1 Codes

Contractor shall perform work in accordance with the latest applicable requirements of the following agencies and as specified and as applicable whether explicitly stated or not in this Scope of Work or Exhibit B, Plans:

1. Americans with Disabilities Act (ADA).
2. Standard Specifications for Public Works (Green Book).
3. The American Public Works Association (APWA) Standard Plans for Public Works Construction.
4. California/OSHA (Occupational Safety and Health Act) Construction Safety Orders.
5. All local codes which govern the installation and usage of electrical and electronic equipment, including pertinent conduits and structural facilities.
 - American Society for Testing and Materials (ASTM).
 - American Concrete Institute (ACI).
 - American National Standards Institute (ANSI).
 - Institute of Electrical and Electronic Engineers (IEEE).
 - Instrument Society of America (ISA).
 - National Electrical Contractors Association (NECA).

- National Electrical Manufacturers Association (NEMA).
- National Fire Protection Association (NFPA).
- NFPA 70, National Electric Code (NEC).
- California Public Works Association (CPWA).

G - 2 COOPERATION AND COLLATERAL WORK

The contractor shall be responsible for ascertaining the nature and extent of any simultaneous, collateral, and essential work by others. Public Works, its workers and contractors and others, shall have the right to operate within or adjacent to the jobsite during the performance of such work.

Public Works, the contractor, and each of such workers, contractors and others shall coordinate their operations and cooperate to minimize interference.

The contractor shall be responsible for all costs involved as a result of coordinating its work with others. The contractor will not be entitled to additional compensation from Public Works for damages resulting from such simultaneous, collateral, and essential work. If necessary to avoid or minimize such damage or delay, the contractor shall redeploy its work force to other parts of the work.

G - 3 PROJECT SITE MAINTENANCE

G - 3.1 Cleanup

Throughout all phases of installation, including suspension of work, and until final acceptance, the contractor shall keep the jobsite clean and free from rubbish and debris.

Materials and equipment shall be removed from the jobsite as soon as they are no longer necessary. Before the final inspection, the jobsite shall be cleared of equipment, unused material, and rubbish so as to present a satisfactory clean and neat appearance. Contractor shall be responsible for all cleanup costs.

G - 3.2 Temporary Light, Power, and Water

The contractor shall furnish, install, maintain, and remove all temporary light, power, and water at its own expense. These

include piping, wiring, lamps, and other equipment necessary for the work and shall include constructing those facilities which may be required to provide prevention, control, and abatement of water pollution.

G - 3.3 Sanitation

The contractor shall provide and maintain enclosed toilets for the use of employees engaged in the work. These accommodations shall be maintained in a neat and sanitary condition. They shall also comply with all applicable laws, ordinances, and regulations pertaining to public health and sanitation of dwellings and camps.

Wastewater shall not be interrupted. Should the contractor disrupt existing sewer facilities, sewage shall be conveyed in closed conduits and disposed of in a sanitary sewer system. Sewage shall not be permitted to flow in trenches or be covered by backfill.

G - 4 BEST MANAGEMENT PRACTICES

Best Management Practices (BMPs) shall be defined as any program, technology, process, sighting criteria, operating method, measure, or device which controls, prevents, removes, or reduces pollution. The contractor shall obtain and refer to the California Storm Water Best Management Practice Handbooks, Volume 3 Construction BMP Handbook and the Los Angeles County Department of Public Works Best Management Practices Handbook for Construction Activities.

The contractor shall have a minimum of two readily accessible copies of each publication on the jobsite at all times.

At a minimum, the Contractor shall implement the following BMPs in conjunction with all its activities and construction operations:

<u>NO.</u>	CONSTRUCTION PRACTICES
CD4(2)	Water Conservation Practices
<u>NO.</u>	WASTE MANAGEMENT
CD13(2)	Solid Waste Management
CD17(2)	Sanitary/Septic Waste Management

<u>NO.</u>	VEHICLE AND EQUIPMENT MANAGEMENT
CD18(2)	Vehicle and Equipment Cleaning
CD19(2)	Vehicle and Equipment Fueling
CD20(2)	Vehicle and Equipment Maintenance

Additional BMPs may be required as a result of a change in actual field condition, contractor activity, or construction operation. When more than one BMP is listed under each specific BMP category, the contractor shall select the appropriate and necessary number of BMPs within each category in order to achieve the BMP objective.

The contractor shall implement BMPs for approximately 100 linear feet ahead and behind the jobsite area.

Public Works, as permittee, is subject to enforcement actions by the State Water Resources Control Board, Environmental Protection Department, and private citizens. Public Works will assess the contractor a penalty of \$1,000 for each calendar day that the contractor has not fully implemented the BMPs specified for this Contract and/or is otherwise in noncompliance with these provisions. In addition, Public Works will deduct, from the final payment due to the contractor, the total amount of any fines levied on Public Works, plus legal and staff costs, as a result of the contractor's lack of compliance with these provisions and/or less than complete implementation of the specified BMPs.

G - 5 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS

The contractor shall be responsible for the protection of public and private property adjacent to the work and shall exercise due caution to avoid damage to such property.

The contractor shall repair or replace all existing improvements within the right of way which are not designated for removal which are damaged or removed as a result of its operations. Repairs and replacements shall be at least equal to existing improvements and shall match them in finish and dimension.

Trees, lawns, and shrubbery that are not to be removed shall be protected from damage or injury. If damaged or removed due to contractor's operations, they shall be restored or replaced in as nearly the original

condition and location as is reasonably possible. Lawns shall be reseeded and covered with suitable mulch.

G - 6 PUBLIC CONVENIENCE AND SAFETY

G - 6.1 Working Hours

The contractor shall perform work in the hours prescribed by each respective city.

G - 6.2 Street Closures, Detours, Barricades

The contractor shall comply with all applicable State, County, and city requirements for the closure of streets. The contractor shall provide flag persons and watch persons as required to control traffic and advise the public of detours and construction hazards. The contractor shall also be responsible for compliance with additional public safety requirements which may arise during the course of work.

In addition, it shall be the contractor's responsibility to allow passage of public transit coaches through work areas at all times. For the Metropolitan Transportation Authority (MTA), the contractor shall notify the Stops and Zones Representative, (213) 972-7100, at least 48 hours prior to installation at bus stops zones to allow the MTA to temporarily abandon and relocate bus stop zones within the work areas.

G - 6.3 Traffic Control Plans and Devices

The contractor shall provide any necessary traffic control plans, in accordance with the Manual of Uniform Traffic Control Devices. In addition, the contractor shall operate all traffic control devices as specified in the Caltrans "Manual of Traffic Controls – For Construction and Maintenance Work Zones".

G - 7 CONFINED SPACES

G-7.1 Confined Space Entry Program

The contractor shall be responsible for implementing, administering and maintaining a confined space entry program (CSEP) in accordance with Sections 5156, 5157, and 5158, Title 8, CCR.

Prior to performing any work in a confined space, the contractor shall prepare and submit its comprehensive CSEP to the Contract Manager. The CSEP shall address all potential physical and

environmental hazards and contain procedure for safe entry into confined spaces, including, but not limited to the following:

1. Training of personnel
2. Purging and cleaning the space of materials and residue
3. Potential isolation and control of energy and material inflow
4. Controlled access to the space
5. Atmospheric testing of the space
6. Ventilation of the space
7. Special hazards consideration
8. Personal protective equipment
9. Rescue plan provisions

The contractor's submittal shall include the names of its personnel, including subcontractor personnel, assigned to the project who will have CSEP responsibilities, their CSEP training, and their specific assignment and responsibility in carrying out the CSEP.

G-7.2 Permit-Required Confined Spaces

Entry into permit-required confined spaces as defined in Section 5157, Title 8, CCR is required as a part of the work. The contractor shall implement a permit space program prior to performing any work in a permit-required confined space. A copy of the permit shall be available at all times for review by contractor and Public Works personnel at the jobsite.

G - 8 RELATIONS WITH CHEVRON PRODUCTS COMPANY

G - 8.1 General

The contractor shall cooperate and comply with all requirements of the Chevron Products Company, hereinafter referred to as "Chevron" where work is within the limits of Chevron's property.

G - 8.2 Work within Chevron Property

The contractor shall perform work within Public Works' right of way while working within Chevron property. Any deviations from the boundaries defined in Exhibit B, Plans shall be authorized by Chevron.

The contractor's attention is directed toward the potential hazards that may arise from working within or in proximity to Chevron's property. Chevron has a fully functional railway track which facilitates the transport of Chevron products. The contractor should expect the trains to pass at any time during the day. It shall be the contractor's responsibility to become familiar with train activity in order to plan and perform work. The wiring for the system shall be installed in the existing conduit within Public Works' casing located under the tracks.

The contractor shall install antennas, PLC, RIO's, and appurtenances so as to not be obtrusive to sight and operations at Chevron. Antennas shall be installed near existing trees and or telephone poles to be obscured from view.

SECTION II- PROJECT TASKS AND DELIVERABLES

H. TASK 1: PROJECT MANAGEMENT

H - 1 WORK SCHEDULE

The work schedule shall reflect the following:

H - 1.1 Criteria

Within 15 working days after the County issues the Notice to Proceed, the contractor shall prepare and deliver a work schedule that conforms to the following criteria:

1. The work schedule shall be prepared using an automated Network Analysis System (NAS) with Critical Path Method (CPM) techniques. The NAS shall be the latest version of Primavera "Suretrak", Microsoft "Project", or Public Works approved equal.

2. Task items shall be based on the items of work for each task per Section A, Work Organization.
 - a. Work activities shall be subdivided into those portions to be installed during each task.
 - b. The procurement of materials and equipment shall be included as activities.
 - c. Work to be performed by subcontractors shall be identified and shown as work activities.
3. The time of completion as described in Part II, Sample Agreement.
4. Completion of the work shall be performed in accordance with this Scope of Work and Exhibit B, Plans.
5. Milestones shall be clearly illustrated and identified as such.

H - 1.2 Requirements

The work schedule shall reflect the following:

1. Contractor shall work within the time restrictions as specified by each city.
2. Contractor shall schedule and be responsible for coordinating related work with other trades, vendors, subcontractors, and others to avoid omissions and delays in project status.
3. Work shall be scheduled to be performed by task as described in Section A, Work Organization. The required wells shall be scheduled and performed first.
4. For optional wells, the contractor shall obtain prior written approval from the Contract Manager before any work is started on optional wells.
5. Work performed on optional wells shall be indicated on the schedule. Material and equipment required for this task shall not be procured prior to the contractor receiving prior written approval from the Contract Manager.

H - 1.3 Monthly Updates

The contractor shall submit two paper copies of the updated work schedule to the Contract Manager on the first working day of each month.

All work shall be performed in accordance with the approved schedule. Any variations to project scheduling must be approved by the Contract Manager.

H - 2 MANAGEMENT MEETINGS

Contractor shall attend and participate in all meetings scheduled by or at the request of the Contract Manager. These include, but are not limited to, a regularly scheduled weekly management meeting on the project site for the purposes of the management of the installation and for the management of the project site operations. The contractor shall attend and participate in all pre-job meetings with each respective city, at least one week prior to starting work within that city. The contractor shall make available those resources, reports, and records necessary to effectuate timely and productive management meetings. The contractor shall formally record and publish the minutes, which shall be furnished to all attendees and other interested parties no later than 72 hours following the conclusion of the meeting.

I. TASK 2: SUBMITTALS

I - 1 SUBMITTALS

Submittals as described below shall be mailed to the Contract Manager within 20 business days of the issuance of the NTP. All submittals shall be approved by the LACDPW Contract Manager prior to commencement of any work.

Contractor shall provide the planned security configurations for each installed component or system (if applicable) for review and approval by LACDPW Contract Manager and Information Security Officer.

I - 1.1 Working Drawings

Working drawings shall show details of work to be designed and performed by contractor that are not specifically shown on Exhibit B, Plans or conditions encountered in the field.

I - 1.2 Shop Drawings

Shop drawings shall show details of manufactured or assembled products proposed to be incorporated into the work. Shop drawings include:

1. ADATS Equipment, subsection M - 1.2, Submittals.
2. Sensor and Communication Cable, subsection L - 1.2, Submittals.
3. Conduit, conductor, service meter, and wire, subsection K-1.3, Submittals.

I - 1.3 Supporting Information

The following is a list of supporting information required for the administration of this Contract:

Data supporting Exhibit C, Hardware/Software Procurement List, including updates, if applicable. This includes, but is not limited to, catalog sheets, manufacturer's brochures, technical bulletins, specifications, equipment cut sheets, diagrams, product samples, and any other information necessary to describe a system, product, or item.

I - 1.4 Acceptance Test Plan

Prior to Final Testing, the contractor must submit an Acceptance Test Plan that is mutually approved by County and vendor prior to commencing testing to verify that the ADATS meets the requirements and specifications. See Section Q for Final Testing requirements.

J. TASK 3: PERMITS

J-1 PERMITS

The Contractor shall inquire the governing authorities (see below) to confirm if encroachment permits are necessary. If so, the contractor shall obtain and pay for permits required for the tasks in this Scope of Work prior to the start of the work in the corresponding governed areas. The contractor shall also arrange and pay for any necessary inspections.

1. Cal Trans Permit Office:
(213) 897-3631

2. City of El Segundo Public Works Permit Inspection:
(310) 524-2300
3. Manhattan Beach City Hall (Coastal Development
Department):
(310) 802-5000
4. City of Hermosa Beach Public Works Permit Inspection:
(310) 318-0262
5. City of Redondo Beach Public Works Permit Inspection:
(310) 318-0661
6. City of Torrance Public Works Permit Inspection:
(310) 618-5990

K. TASKS 4A, 4B, 4C, 4D, and 4E: CONDUIT, CONDUCTOR, SERVICE METER,
AND WIRE INSTALLATION

K - 1 GENERAL

Contractor shall install all electrical conduit and related products in accordance with this Scope of Work. Detailed product specifications are included in subsection K-2 for all products listed in subsection K-1.1 below.

The approximate number of devices and related appurtenances to be installed in each work location is included in Section T, under Task Nos. 4A, 4B, 4C, 4D, and 4E.

K - 1.1 Subsection Includes

- Metal Conduit.
- Liquid tight flexible metal conduit.
- Fittings and conduit bodies.
- Non-metallic conduit and fittings.
- Power conductors 600 volts and below.
- Signal and control wires.
- Pull boxes.
- Service meter.

K - 1.2 References

- ANSI C80.1 – Rigid Steel Conduit, Hot Dipped Galvanized.
- ANSI/NEMA FB 1 – Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit and Cable Assemblies.
- FS A-A-55810– Federal Specifications for Flexible Metal Conduit.
- NEMA TC2 – Electrical Plastic Tubing and Conduits.
- NEMA TC3 – PVC Fittings.
- ANSI/NFPA 70 – National Electric Code.
- NECA "Standard of Installation".

K - 1.3 Submittals

Product Data: Contractor shall provide data for the items listed in M.1.1.

K - 1.4 Regulatory Requirements

- Contractor shall conform to applicable ANSI/NFPA codes.
- Contractor shall furnish products listed and classified by Underwriters Laboratories, Inc. as suitable for purposes specified and shown.

K - 1.5 Delivery, Storage, and Handling

- Contractor shall accept conduit onsite. Contractor shall inspect for damage.
- Contractor shall protect conduit from corrosion and entrance of debris by storing above grade. Contractor shall provide appropriate covering.
- Contractor shall protect PVC conduit from nicks and dents.

K - 1.6 Project Conditions

- Contractor shall verify routing and termination locations of conduit prior to rough-in.
- Conduit runs on Exhibit B, Plans, is approximate unless dimensioned. Contractor shall route conduit as required to complete wiring system.
- Contractor shall install conduit runs within project boundaries as defined on Exhibit B, Plans. Where impractical, the contractor shall install conduit at closest possible extent to project boundaries within public right of way only.

K - 2 PRODUCTS

K - 2.1 Conduit Requirements

- Outdoor Locations, Above Grade: Contractor shall use rigid galvanized steel conduit and fittings approved for use with rigid conduit.
- Wet or Damp Locations: Contractor shall use PVC coated rigid galvanized steel conduit, couplings, straps, fittings, and conduit bodies.
- Dry Locations: Contractor shall use rigid galvanized steel conduit.
- Indoor Locations: Contractor shall use rigid galvanized steel conduit in all mechanical or equipment buildings. Contractor shall use electrical metallic tubing (EMT) for installations in offices, control rooms, or other indoor locations as approved by the Contract Manager.

K - 2.2 Metal Conduit

- Rigid Galvanized Steel Conduit: ANSI C80.1.

K - 2.3 Liquid tight Flexible Metal Conduit

- Description: Interlocked steel construction with PVC jacket. FS A-A-55810.

K - 2.4 Fittings and Conduit Bodies

- Description: Hot dipped galvanized steel or malleable iron (Form 35). ANSI/NEMA FB1.

K - 2.5 Plastic Conduit and Fittings

- Conduit Schedule 40 PVC, NEMA TC2.
- Fittings and Conduit Bodies: NEMA TC3.

K - 2.6 Power Conductors 600 Volts and Below

- All conductors shall be UL listed and shall be suitable for the temperature, conditions, and location where installed.
- Use only copper conductors.
- Provide conductors with Type XHHW insulation for power cables that are installed underground for any portion of their length.
- Conductors for applications of 600 volts and below shall be rated for 600 volts unless otherwise specified. Minimum wire size for power shall be #12 AWG.
- Size of branch circuit conductors shall comply with NEC 210.19.
- Equipment ground conductors shall be soft-drawn copper, not smaller than #12 AWG and as indicated or as required by NEC. Provide conductors with green insulation of the same type as all other circuit wires.

K - 2.7 Signal and Control Wires

- Conductors shall be flexible stranded copper machine tool wire; UL listed Type MTW/TEW and shall be rated 600 volts. Wires for instrument signal circuits and alarm input circuits shall be #14 AWG. All other wires, including shielded cables, shall be #18 AWG minimum.
- All wiring rated above 50V shall be run in separate conduit from wiring rated below 50V.

K - 2.8 Pull Boxes

- Below grade pull boxes shall be Polymer Concrete, Parkway rated box and shall be 30"x17"x12"D minimum. Pull boxes shall match the existing pull boxes installed for the Telemetry System.
- Cover to be marked "LACFCD" and color to blend in with surrounding.
- Pull box and cover assembly shall meet H20 traffic loading.

K - 2.9 Service Meter

- 120/240V, 1 phase, 3 wire, 100A service.
- Meets SCE requirements.
- 100A main breaker, 10K AIC.
- 24 circuit copper bussed load center unless marked otherwise in plans.
- 12 gauge corrosion resistant zinc coated steel, NEMA 3R.
- Light green powder coat finish in accordance with ASTM B-117.
- U.L. listed.

K - 2.10 Examination

- Contractor shall verify routing and termination locations of conduit prior to rough-in.

K - 2.11 Installations

- Contractor shall install conduit in accordance with NECA "Standard of Installations".
- Contractor shall install non-metallic conduit in accordance with manufacturer's instructions.
- Contractor shall arrange supports to prevent misalignments during wiring installations.

- Contractor shall support all conduit using hot dipped galvanized steel or malleable iron straps.
- Contractor shall group related conduits and support using conduit rack. Contractor shall construct rack using galvanized Unistrut channel.
- Contractor shall arrange conduit to present neat appearance. Contractor shall install conduits level and plumb.
- Contractor shall route conduit parallel and perpendicular to walls.
- Contractor shall cut conduit square using a saw and de-burr cut ends.
- Contractor shall fasten conduit securely to fittings.
- Contractor shall join non-metallic conduit using cement as recommended by manufacturer. Contractor shall wipe conduit dry and clean. Contractor shall apply PVC primer and cement evenly to entire area inserted in fitting. Contractor shall allow it to cure for 20 minutes.
- Contractor shall use weather tight conduit hubs to fasten conduit to metallic enclosures.
- Contractor shall provide suitable pull string in each conduit. Contractor shall use suitable caps to protect installed conduit against entrance of dirt and water.
- Contractor shall ground and bond conduit in accordance with NFPA 70.
- Contractor shall bury all underground conduit runs at a minimum of 18 inches below finished grade.
- Contractor shall keep all instrumentation conduit runs a minimum of 18 inches from electrical conduit runs.
- Contractor shall inform the Contract Manager and call the Edison Service Planner for the respective service area (El Segundo and Redondo Beach) 30 days prior to request installation of the conductors and energizing of the meter:

- 1) El Segundo Service Meter – Please contact John Deng at (310) 783-9305.
- 2) Redondo Beach Service Meter – Please contact Ryan Barfield at (310) 783-9340.

L. TASK 5A, 5B, 5C, 5D, and 5E: SENSOR AND COMMUNICATION CABLE INSTALLATION, CALIBRATION AND TESTING

L - 1 GENERAL

Contractor shall install all sensors in accordance with this Scope of Work in the Cities of El Segundo, Manhattan Beach, Hermosa Beach, and Redondo Beach. Detailed product specifications are included in subsection L-2 for all sensors listed in subsection L-1.1 below. Contractor shall use all instrument enclosures that are NEMA type 6 as specified in Exhibit B, Plans or Public Works approved equal.

Contractor shall run all necessary communications cables from installed sensors to the appropriate RIO/PLC location. Detailed product specifications are included in subsection L-2 for the communication cables listed in subsection L-1.1 below. The approximate lengths of cable to be installed in each city are included in Section T, under Task Nos. 5A, 5B, 5C, 5D, and 5E.

L - 1.1 Subsection Includes

- Water Level Sensor.
- Well Head Pressure Sensor.
- Injection Well Flow Rate Sensor.
- Injection Well Packer Pressure Sensor.
- Water in Vault Level Sensor.
- Fiber Optic Cables (Communication Cables).

L - 1.2 Submittals

- O & M Manuals.
- Specs for the communication cables.
- Calibration Reports.

- Manufacturer's Installation Instructions.
- Detailed instructions/manual to add optional wells to the telemetry system (i.e. installing devices in wells and programming the server).

L - 1.3 Qualifications

- Manufacturer: Contractor shall utilize a company specializing in manufacturing products specified in this section with a minimum of 3 years experience.

L - 1.4 Regulatory Requirements

- Contractor shall conform to requirements of ANSI/NFPA 70 (National Electric Code).
- Contractor shall furnish products listed and classified by Underwriters Laboratories, Inc. as suitable for purpose specified and shown.

L - 2 PRODUCTS

L - 2.1 Water Level Sensor

General:

- Function: Measure and transmit a signal proportional to water level.
- Type: Submersible, Two-wire transmitter.
- Parts: Transmitter, sensor termination enclosure and cable.

Performance:

- Range: 0 – 150 PSIG sensors for injection wells and a 0 – 30 PSIG sensors for observation wells.
- Accuracy: 0.1% of full scale.
- Sensitivity: +/- 0.5% of reading.
- Operating Temperature: Minus 5 to plus 140 degrees F.

Service:

- Process Liquid: Water.
- Mounting: NPT, transmitter must fit in a 3/4-inch access pipe.
- Service: Outdoor heavy duty.
- Ingress Protection: NEMA 6 to 2,300 feet of water.

Features:

- Materials: Titanium Body and components with the ability to withstand elevated chloride levels.
- Cable length of the transmitter shall have 30 feet long extra in addition to the mounting depth as indicated in the instrumentation schedule in plans.

Signal Interface:

- Output: 4 to 20 mA for 24V D.C. supply.

Manufacturers:

- Druck PTX 1830 with STE 110 sensor termination enclosure or Public Works approved equal.

L - 2.2 Well Head Pressure Sensor

General:

- Function: Measure and transmit a signal proportional to well head pressure.
- Type: Two-wire transmitter.
- Parts: Transmitter.

Performance:

- Range: 0 – 50 PSIG.
- Accuracy: 0.15% of full scale.
- Sensitivity: +/- 0.5% of reading.
- Operating Temperature: Minus 20 to plus 250 degrees F.

Service:

- Process Liquid: Water.
- Mounting: 1/4-inch NPT female.
- Service: Outdoor heavy duty.

Features:

- Materials: 316 stainless steel and components with the ability to withstand elevated chloride levels.

Signal Interface:

- Output: 4 to 20 mA for 24V D.C. supply.

Manufacturers:

- Druck PTX 510 or Public Works approved equal.

L - 2.3 Injection Well Flow Rate Sensor

General:

- Function: Measure and transmit a signal proportional to well injection rate flow.
- Type: Two-wire transmitter.
- Parts: Transmitter.

Performance:

- Range: 0 – 15 PSID
- Accuracy: +/- 1% of full scale, each side considered separately.
- Operating Temperature: Minus 20 to plus 80 degrees C.

Service:

- Process Liquid: Water.
- Service: Outdoor heavy duty.

Features:

- Materials: Pressure port assembly made of 316 Stainless Steel.

Signal Interface:

- Output: 4 to 20 mA for 24V D.C. supply.

Manufacturers:

- Druck PTX 120/2WL or Public Works approved equal.

L - 2.4 Injection Well Packer Pressure Sensor

General:

- Function: Measure and transmit a signal proportional to packer pressure.
- Type: Two-wire transmitter.
- Parts: Transmitter.

Performance:

- Range: 0 – 350 PSIG.
- Accuracy: 0.15% of full scale.
- Sensitivity: +/- 0.5% of reading.
- Operating Temperature: Minus 20 to plus 250 degrees F.

Service:

- Process Liquid: Water.
- Mounting: 1/4-inch NPT female.
- Service: Outdoor heavy duty.

Features:

- Materials: 316 stainless steel and components with the ability to withstand elevated chloride levels.

Signal Interface:

- Output: 4 to 20 mA for 24V D.C. supply.

Manufacturers:

- Druck PTX 510 or Public Works approved equal.

L - 2.5 Water in Vault Level Sensor

General:

- Function: Measure and transmit a signal to indicate water in vault.
- Type: Two-wire transmitter.
- Parts: Transmitter.

Performance:

- Rating: 150 PSIG.
- Float Specific Gravity: Maximum of 0.43.
- Operating Temperature: Minus 40 to plus 140 degrees F.

Service:

- Process Liquid: Water.
- Service: Outdoor heavy duty.
- Slosh shield to prevent faulty readings.

Excitation Voltage:

- 24V D.C. supply power.

Manufacturers:

- Gems Sensors LS-270 or Public Works approved equal.

L - 2.6 Fiber Optic Cables

- Contractor shall use All-Dielectric Gel-Free single-mode cable. The cable shall be designed for outdoor uses and in duct installation.
- The fiber optic cable shall have a minimum of 12 fibers.
- Fiber Optic cables shall be manufactured by Corning ALTOS All-Dielectric Gel-Free or approved equal

L-2.7 Installation

- Contractor shall install products in accordance with manufacturer's instructions.
- Contractor shall label each instrument permanently with its instrument tag as shown on the instrument schedule.
- Contractor shall verify the continuity of the wiring. All pulled wiring is subject to inspection to ensure no damage is sustained during installation.
- Contractor shall test for proper operation over the full range of the instrument.
- Contractor shall install all wires in existing protective conduit runs. In accordance with Section K, the Contractor shall install additional conduit anywhere conduit is necessary for the completion of the system.

L – 3 PRODUCT CALIBRATION AND TESTING

Product calibration and testing shall be performed as follows:

1. Contractor shall verify the continuity of the wiring.
2. Contractor shall perform calibration and testing for proper operation over the full range of the instrument.
3. Contractor shall perform testing of each data measurement device at each site by comparing with manually obtained data. The method for acquiring manually obtained data shall be approved by the Public Works' Contract Manager prior to any calibration activities.

All results shall be recorded and submitted to the Contract Manager for verification and approval.

M. TASK 6A, 6B, 6C, 6D, 6E, 6F, and 6G: AUTOMATED DATA ACQUISITION AND CONTROL SYSTEM INSTALLATION, PROGRAMMING AND TESTING

TASK 7: COORDINATION WITH LACDPW ITD, TESTING, AND PROGRAMMING

M - 1 GENERAL

Contractor shall install all Automated Data Acquisition and Control System products in accordance with this Scope of Work in the cities of El Segundo, Manhattan Beach, Hermosa Beach, and Redondo Beach and at Redondo Beach Yard. Detailed product specifications are included in subsection M-2 for all products listed in subsection M-1.1 below.

The approximate number of devices and related appurtenances to be installed in each work location is included in Section T, under Task Nos. 6A, 6B, 6C, 6D, 6E, 6F, 6G, and 7.

M - 1.1 Subsection Includes

- Programmable Logic Controller (PLC).
- Inter PLC Communications System.
- Remote I/O (RIO) System.
- Digital Data Service (DDS) Modem.
- Radio Frequency Radio Modem.
- Workstation.
- Server (Alarm System, Graphic Tags, and Client Licenses).

M - 1.2 Submittals

- Contractor shall submit all wiring diagrams, schematics, panel layouts and Operations and Maintenance (O&M) Manuals including spare parts list.
- Contractor shall submit equipment factory test results where available.
- Contractor shall submit manufacturer's installation instructions.

- Contractor shall submit technical Consultants resumes, references, and relevant project experience.

M - 1.3 Qualifications

- Manufacturer: Contractor shall utilize a company specializing in manufacturing products specified in this section.
- Contractor: Contractor shall specialize in the installation of electronic equipment and shall specialize in the programming and installation of the specific hardware used.

M - 1.4 Regulatory Requirements

- Contractor shall conform to requirements of ANSI/NFPA 70 (National Electric Code).
- Contractor shall furnish products listed and classified by Underwriters Laboratories, Inc. as suitable for purpose specified and shown.

M - 2 PRODUCTS

M - 2.1 Programmable Logic Controller (PLC)

- The system shall consist of one PLC and 49 remote I/O modules deployed in a distributed network to reduce field junctions and to limit excessive lengths of cable runs from remote instrument locations.
- The PLC shall be Siemens S7-319-3 CPU PN/DP or Public Works approved equal.
- PLC shall be located at Redondo Yard with NEMA 12 enclosure.
- The PLC at the Redondo Yard shall transmit data to the Public Works Headquarters building using a T1 communications line. T1 connectivity at the Redondo Yard shall be provided by Public Works.
- PLC shall have flexible, modular I/O interfaces suitable for a variety of sensors, transducers, and actuators. Specifically, I/O modules shall provide direct excitation and measurement of 4-20 mA transmitters. Instrumentation interface modules, in conjunction with user programming through the WinCC

software Version 6.0, shall allow instrument connections at PLC.

- The PLC shall be capable of autonomous operation, which is node-driven, distributed intelligence architecture. Once programmed, PLC shall execute tasks autonomously, without polling by a "host" computer. PLC configuration programming shall be non-volatile through power shut downs of any kind, including battery disconnects and replacements.
- PLC and RIO's shall communicate with each other via Ethernet on the fiber optic network unless indicated otherwise in plans.
- The communications protocol supported by the PLC shall allow, in addition to communication directly with workstations, peer to peer communications between any nodes in the network. The reliability and flexibility of peer to peer communication shall have the following features: Error Detection Algorithm, Link Level Security, Network Level Security, Repeating, Routing, and Bridging, Retry and Back-off Algorithm, Link Failure Algorithm, and Physical Link Support.
- The PLC shall support point to multipoint communications using wire line, radio, microwave, and fiber optics. The PLC shall also support point to point using RS232, auto-dial/auto answer for public telephone and satellite phone networks.
- RIO enclosure located inside vault shall be NEMA 4X rated.

M - 2.2 Inter PLC Communications System

- Fiber Optic Network.

General:

- Function: Device used for conversion of RJ-45 signals to fiber-optic compatible signals.
- Type: RJ-45 to Fiber-optic.

Performance:

- Transmission Rates: 100 Mbps.
- Transmission Range: Up to 47,520 ft.

Features:

- Single mode.

Power Supply:

- 24V D.C. supply.

Manufacturers:

- Siemens Scalance X204-2LD.

M - 2.3 Remote I/O System

- Siemens ET-200S distributed I/O Interfuge Module IM151-3.
- Power Module PM-E-DC24V.
- Digital electronic module 8DI-DC24V.
- Analog electronic module 4AI 2 wire ST.
- Fiber optix switch Siemens Scalance X204-2LD.

M - 2.4 Digital Data Service (DDS) Modem

General:

- Function: Allow for data transmission across telephone networks.

Performance:

- DTE Rates: 2.4, 4.8, 9.6, 19.2 Kbps sync or async; 38.4, 56, or 64 Kbps sync.
- Interface: V.35 or RS-232.

Power Supply:

- 115V VAC.

Manufacturers:

- MT132A-R2 CSU/DSU from Black Box or Public Works approved equal.

M - 2.5 Radio Frequency Radio Modem and Serial Server

General:

- Function: Data transmission over air.

Performance:

- Data Rates: up to 19,200 bps over air.

Features:

- The Radio Frequency Radio Modem shall have an omni-directional antenna or Yagi antenna as indicated on plans for optimal performance and shall operate at 412.675 MHz.
- Serial server shall provide connection from serial device to Ethernet network.

Power Supply:

- 24V VDC.

Manufacturers:

- Teledesign Systems, model TS4000 radio with Digi, model Portserver TS MEI serial server or Public Works approved equal.

Cable Connection:

- Low-loss RG8-type 50-ohm coaxial cable shall be a LMR400 assembly with N-male connectors on both ends, type TIMA40A-XX, where "XX" is the required length, as sold by Talley Communications.

M - 2.6 Workstation

- Computer Tower - Intel Core 2 Quad Q9550, 2.83GHz, 1,333GHz FSB, 12MB Cache, 4GB DDR2 800MHz RAM, TWO 500GB HDs (2x250GB SATA NCQ HDD Smart IV w/RAID 1), 16x DVD+/-RW SATA SuperMulti LightScribe,

InterVideo WinDVD - Easy Media Creator, 512MB ATI Radeon HD 3650, 10/100/1,000 Ethernet, USB Optical Mouse, USB Keyboard, High Definition Audio, Windows XP Pro, 4 Year NBD Onsite Warranty with retain existing HD.

- Computer Monitor – HP L2445W + EE418AA, 24" viewable, Widescreen, .270 DP, 400 cd/m2 brightness, 1,000:1 contrast, 160/160 viewing angle, Analog & DVI interfaces, 1920x1200 resolution max., Built-in speakers, 4 port USB 2.0 hub, Height, tilt, and swivel adjustable, 22.3Wx11.9Dx20.7H, 21.8LBS., 3 year warranty.

M - 2.7 Server

- Contractor shall provide additional graphic tags to the existing WinCC version 6.0 program at the LACDPW HQ Blueroom Telemetry computer in order to incorporate this project. Also, the Contractor shall purchase and install a client license at each of the three new computer workstations at WBMWD, El Segundo, and Redondo Yards.
- The contractor shall provide and install SCADA alarm management software on the existing SCADA server at Public Works Headquarters. The SCADA alarm management software shall incorporate the new West Coast Basin Barrier ADATS as well as the existing Dominguez Gap and Alamitos telemetry systems.
- SCADA alarm management software shall provide e-mail notification, voice notification, and log when alarms are activated.
- The contractor shall coordinate with Public Works for the number of alarms and e-mail/voice notification recipients for each of the three telemetry systems. The alarm system shall be customized for each of the three telemetry systems.
- SCADA alarm management software shall be fully compatible with Siemens SIMATIC WinCC, Version 6.0.
- SCADA alarm management software shall be Wonderware SCADAAlarm, version 6.0 or Public Works approved equal.

M – 2.8 Installation

- The contractor shall mount all hardware related to the system. The contractor shall bring all wire terminations into the enclosures with a minimum of six feet of additional wire.
- The contractor shall ensure that all RIO's are installed and programmed appropriately and shall make all wire connections to the RIO and program the units to operate as outlined in this Scope of Work and Exhibit B, Plans.
- The RIO shall be programmed to integrate transparently with the existing WinCC system at LACDPW Headquarters.
- Commissioning of the system, including startup, shall be performed by the contractor. All pulled cables are subject to inspection and verification to ensure that no damage is sustained during installation.

M-3 PROGRAMMING AND TESTING GUIDELINES

- a. The contractor shall ensure that all PLCs are installed appropriately before beginning programming. The installation of ADATS shall not be considered complete until the contractor has completed all necessary programming, calibrating, and testing
- b. Programming of all units shall occur so that the ADATS operates as outlined in this Scope of Work and Exhibit B, Plans.
- c. Upon completion of the ADATS installation, the contractor shall provide programming at the PLC, identified in Table E.2 (a) and in Exhibit B, Plans, and at the PLC installed at the Redondo Yard.
- d. The contractor shall utilize the existing server and WinCC software Version 6.0 at Headquarters in cooperation with Public Works in order to program and configure new user-friendly interface screens modeled after the existing Dominguez Gap and Alamitos telemetry system.
- e. Following programming, the contractor must demonstrate and document, to the satisfaction of the Public Works' Contract Manager, the functional capabilities of the complete ADATS as stated in this Scope of Work.

N. TASK 8: O&M MANUAL

N - 1 GENERAL

Contractor shall furnish the Public Works' Contract Manager upon completion of work, three reproducible sets of O&M manuals along with an electronic copy. The manuals shall be comprehensive in describing the overall objectives of the system and shall describe in detail system operations and programming.

N - 2 SYSTEM OVERVIEW

The contractor shall describe in the O&M manual the system and security architecture for the completed system. The paths of communication from in field locations to Public Works' Headquarters Building and other facilities shall be specified and also the methods of data transmission and the method of data acquisition and the integral components necessary to facilitate data acquisition.

N - 3 SYSTEM COMPONENTS AND EQUIPMENT

The contractor shall describe in the O&M manual the specified components and equipment employed in the system architecture. The contractor shall detail specifically for each component the manufacturer, respective model and part numbers, purpose, power source, power type required, manufacturer specifications, data sheets, applicable warranties, and manufacturers suggested operation guidelines. The following is a list of specific components that will be described under this section:

- RIO's
- Radio and Modem Units
- Operator Interface Unit
- Instrumentation
- Antenna Systems
- Power Subsystems
- Converter Units

The contractor shall also include the plan view and layout location of each component comprising the system. The contractor shall incorporate the final record drawings as signed and certified by such in the O&M manual.

Schematics of Systems components and the respective instrumentation schedules shall be incorporated into the O&M manual. The instrumentation schedule shall represent the appropriate instrument signal tag name, the respective channel number, cable pair number, well number, well type instrument type, instrument function description, output signal, supply voltage and type, pressure range, model and part numbers, and depth location of all water level sensors. The schematics shall show wiring configurations of all RIO and with respect to actual wire connections, wire types, specific hardware used along with respective model and part number.

N - 4 DATA ACQUISITION PARAMETERS

The contractor shall define in the O&M manual the parameters of data acquisition and shall specify the programming methods of triggering instrument reading frequencies, reading frequency set up, and triggering methods modification to meet the needs of Public Works. The contractor shall describe the communication capabilities of the system and at what thresholds the system will maximize system capabilities so as to not cause system failure.

The contractor shall specifically define programming logic for each component of the system. The manual shall define the logic parameters of the instruments, PLC, RIO, operator interface, radio, signal converters, and other programmable components.

N - 5 INSTRUMENTATION ALARMS

The contractor shall define alarms and the detection parameters utilized by the instrument in the O&M manual. The O&M manual shall include steps on how to modify these parameters. Also, the manual shall identify how this information can be extracted from the system to be incorporated with the existing sub database. The contractor shall define network information and when the alarm changes state and the conditions required for clearing the alarm state. The contractor shall define alarm thresholds for each instrument and at which parameters each instrument is set.

N - 6 MAINTENANCE AND TROUBLESHOOTING

The contractor shall define in the O&M manual the diagnostic tools available, RIO and all other component diagnostic measurements and their function. The contractor shall also describe additional software and/or hardware available for troubleshooting. The contractor shall describe diagnostic processes and their purpose in evaluating system/component failure and or queries.

N - 7 CALIBRATION

The contractor shall describe in the O&M manual the suggested calibration frequency, calibration methods, and procedures for each instrument/component requiring such. The contractor shall also record and include all calibration histories as performed in the field for each instrument and for each applicable component of the system.

O. TASK 9: WORKSHOP MEMORANDUM

Near the end of work the contractor shall schedule at least two sets of technical workshops for Public Works employees and agents. At least one week prior to the meeting for the first workshop, the contractor shall submit a memorandum to the Contract Manager describing workshop objectives and goals for review and approval. The workshops shall utilize the developed O&M manual.

O-1 TASK 10A: WORKSHOP SET NUMBER 1

The first workshop set shall be presented by a technical specialist thoroughly familiar with SCADA. This set of workshops is not intended to show exact operation of SCADA but mainly to demonstrate SCADA functionality and confirm the direction of the interface and application development. The contractor shall provide a minimum of two workshops within this set and must provide in-field and hands on training as necessary. All workshops shall accommodate 10 to 15 people, shall allow for open discussion with Public Works personnel, and shall address the following:

1. SCADA graphical interface alternatives and their development at each location.
2. The software and operator screens.
3. The SCADA integration programming with the existing Headquarters server for the ABP and DGBP telemetry system.
4. Methodologies for data acquisition and maintenance of the SCADA.
5. The required standards, screen appearance, and functionality developed for the operator interfaces.
6. A simulated demonstration of the operator interfaces prior to final installation at the jobsite and prior to integration into the ABP and DGBP telemetry system.

O-2 TASK 10B: WORKSHOP SET NUMBER 2

The second workshop shall also be presented by a technical specialist thoroughly familiar with SCADA and shall include a minimum of two workshops. These workshops shall be performed after integration completion and after approval of Acceptance Testing. The contractor shall show SCADA performance and shall train Public Works personnel. This training will involve education on each instrument and network hardware function and maintenance. The contractor shall also plan to visit various jobsites to show hands on use and programming of the SCADA components. The workshop shall also present screen navigation of the SCADA program and use of the developed application.

P. TASK 11: SYSTEM INTEGRATION

The new system shall be integrated with each component as well as with the existing server and the ABP and DGBP telemetry systems. Integration testing of the system shall be performed prior to final completion of the project. All system components must be installed including the optional wells that are given approval as described under subsection A-2. System integration shall ensure that all components of the system are functional and that all instruments respond to manual or automatic probing. It will also ensure that data is able to be monitored at each RIO, West Basin Municipal Water District, Redondo Yard, and Public Works Headquarters building. The contractor shall satisfactorily prove to the Public Works' Contract Manager that the system is fully operational.

Q. TASK 12: FINAL TESTING

Once monitoring system components are installed and all system components are functional, the contractor shall perform testing in accordance with the Acceptance Test Plan and must include an I/O verification. This test shall verify that the field signals are wired properly and the various components function correctly to provide necessary signals to the RIO and react correctly to signals received from the RIO. The contractor shall prepare for this test a sheet, listing in tabular format all relevant signals to be monitored by the system. This sheet shall provide a space wherein both the contractor and the Contract Manager may sign and date the completion of final testing. The Public Works' Contract Manager reserves the right to require the contractor to repeat testing, or to repeat internal testing in order to validate the data.

R. TASK 13: PROJECT RECORD DOCUMENTS

R - 1 AS-BUILT DRAWINGS

Contractor shall maintain at the jobsite a separate and complete set of Exhibit B, Plans, which will be used solely for the purpose of recording changes made in any portion of the work during the course of installation, regardless of the reason for such change. Changes, as they occur, will be marked on the approved set of plans on a daily basis. The payment for each task will be withheld until the Public Works' Contract Manager has verified that "as-built" corrections are current. Before final payment is authorized, contractor shall certify that all changes in the work are included on the plans and shall deliver such to the Public Works' Contract Manager.

R - 2 RECORD DRAWINGS

1. Contractor shall prepare record drawings based on the "as-built" drawings maintained by the contractor during installation. The record drawings shall indicate the locations of telemetry conduits, RIO cabinets, instrumentation schedules, power subsystems, antennas, observation wells, injection wells, pull boxes, and other appurtenant structures to scale.
2. Contractor shall prepare a record set of specifications documenting all equipment, installation, materials, and installation methods. For all installed equipment, the name of the manufacturer and model number shall be specified.
3. Contractor shall create and maintain detailed as-built plans and specifications throughout the duration of the project, and shall document in detail their work procedures, sequences of events, methodologies, calibration, testing, and programming. This documentation shall be such that an outside contractor could utilize the documentation to satisfactorily duplicate or repeat the work on this or similar telemetry projects. The documentation shall be compiled into a report titled "Process Documentation" and submitted as a deliverable item.
4. Contractor shall deliver Source Code and Documentation as the Final Acceptance Date.

R - 3 UPDATED EXHIBIT C, HARDWARE/SOFTWARE PROCUREMENT LIST

The complete ADATS, including all components shall be designated in the Hardware/Software Procurement List. All spare components shall be turned over to the Public Works Contract Manager at Final Acceptance and shall be demonstrated to be in good working order.

S. TASK 14: FINAL ACCEPTANCE AND SYSTEM MAINTENANCE AND SUPPORT

S - 1 CONDITIONS OF FINAL ACCEPTANCE:

In addition to, and in summary of, the satisfactory completion of all deliverables in Section T, Schedule of Tasks and Deliverables, Final Acceptance of the project shall be granted once the contractor has accomplished the following:

1. Installed, connected, calibrated, and integrated all ADATS hardware.
2. Completed all programming at the PLC site, Redondo Yard, and Public Works Headquarters.
3. Conducted successful workshops as required.
4. Performed the application interface programming and configurations for managing the collected data in a similar fashion to that on the ABP and DGBP.
5. Submitted all required project documentation, record documentation, source code documentation, and other necessary documentation.
6. Abided by the terms and conditions of all obtained permits.
7. Provided results of manual field testing versus automatic sensors for monitored attributes
8. Committed to provide one full year of system maintenance and support beyond Final Acceptance per provisions of subsection S-2.
9. Proven to the Public Works' Contract Manager that the ADATS is fully operational.
10. ADATS operates for 60 consecutive days in Public Works' production environment without deficiencies.

S - 2 MAINTENANCE

The contractor shall maintain all instrumentation and system components during the duration of the contract and for a 1 year warranty period from the date of Final Acceptance. The contractor shall replace all damaged or malfunctioning components of the system at no cost to Public Works. The contractor shall be responsible for all cost associated with maintenance of the system for the duration of this contract and for a 1 year warranty period from the date of Final Acceptance. The contractor shall be responsible for all damage to the equipment and the cost of replacement or repair of any damaged equipment. The complete system and all spare equipment designated in the equipment list shall be turned over to the Public Works' Contract Manager at the end of this contract and shall be demonstrated to be in good working order. Nothing in this subsection S-2 shall limit the Contractor's obligations under Exhibit D, Maintenance & Support.

T. SCHEDULE OF TASKS AND DELIVERABLES

Task No. 1- Project Management	
Item	Deliverable Description
H-1	Work Schedule
H-2	Management Meetings
ACCEPTANCE CRITERIA:	The Public Works' Contract Manager has received all supporting information, reviewed it, and approved it

Task No. 2- Submittals	
Item	Deliverable Description
I-1.1	Working Drawings
I-1.2	Shop Drawings
I-1.3	Supporting Information for Exhibit C, Hardware/Software Procurement List (including updates, if applicable)
I-1.4	Acceptance Test Plan
ACCEPTANCE CRITERIA:	The Public Works' Contract Manager has received all drawings, supporting information, and test plan, reviewed and approved them

Task No. 3- Permits	
Item	Deliverable Description
J-1	All permits and respective payments for all inspections by governing authorities as necessary to complete the objectives and requirements of this Scope of Work.
ACCEPTANCE CRITERIA:	The Public Works' Contract Manager has received both hard and electronic copies of all required permits and permissions.

*The items identified in the Acceptance Criteria for Task Nos. 4-6 and 11 are also shown in Exhibit C, Hardware/Software Procurement List.

Task No. 4A – Conduit, Conductor, Service Meter, and Wire Installation	
Item	Deliverable Description
K-1	Installation of conduit in the City of El Segundo (El Segundo Yard, City of El Segundo Storage Facility, Roof of WBMWD)
K-1	Installation of Power Conductors in the City of El Segundo
K-1	Installation of Service Meter in the City of El Segundo
K-1	Installation of Signal and Control Wires in the City of El Segundo
ACCEPTANCE CRITERIA:	<u>Public Works has received a complete set of functioning sensors/transducers and cables, including the following:</u> * 1 SCE Service Meter (Item No. 27) * 25,000 LF Power and Control Cable (Item No. 32) * 8,000 LF Signal Cable (Item No. 33) * Trenching at El Segundo Yard (Item No. 34) * 1,800 LF Conduit (Item No. 35)

Task No. 4B – Conduit, Conductor, Service Meter, and Wire Installation	
Item	Deliverable Description
K-1	Installation of Power Conductors in the City of Manhattan Beach
K-1	Installation of signal and control wires in the City of Manhattan Beach
ACCEPTANCE CRITERIA:	<u>Public Works has received a complete set of functioning sensors/transducers and cables, including the following:</u> * 37,000 LF Power and Control Cable (Item No. 32) * 14,000 LF Signal Cable (Item No. 33)

Task No. 4C – Conduit, Conductor, Service Meter, and Wire Installation	
Item	Deliverable Description
K-1	Installation of Power Conductors in the City of Hermosa Beach
K-1	Installation of signal and control wires in the City of Hermosa Beach
ACCEPTANCE CRITERIA:	<u>Public Works has received a complete set of functioning sensors/transducers and cables, including the following:</u> * 37,000 LF Power and Control Cable (Item No. 32) * 14,000 LF Signal Cable (Item No. 33)

Task No. 4D – Conduit, Conductor, Service Meter, and Wire Installation	
Item	Deliverable Description
K-1	Installation of conduit in the City of Redondo Beach (Redondo Beach Yard)
K-1	Installation of Power Conductors in the City of Redondo Beach (Redondo Beach Yard)
K-1	Installation of Pull Box in the City of Redondo Beach Yard
K-1	Installation of signal and control wire in the City of Redondo Beach Yard
K-1	Installation of Service Meter in the City of Redondo Beach
ACCEPTANCE CRITERIA:	<u>Public Works has received a complete set of functioning sensors/transducers and cables, including the following:</u> * 1 SCE Service Meter (Item No. 27) * 62,000 LF Power and Control Cable (Item No. 32) * 23,000 LF Signal Cable (Item No. 33) * 600 LF Conduit (Item No. 35) * Pull box (Item No. 36)

Task No. 4E – Conduit, Conductor, Service Meter, and Wire Installation	
Item	Deliverable Description
K-1	Installation of Power Conductors in the City of Torrance
K-1	Installation of signal and control wire in the City of Torrance
ACCEPTANCE CRITERIA:	<u>Public Works has received a complete set of functioning sensors/transducers and cables, including the following:</u> * 14,000 Power and Control Cable (Item No. 32) * 5,000 LF Signal Cable (Item No. 33)

Task No. 5A – Sensor and Communication Cable Installation, Calibration, and Testing	
Item	Deliverable Description
L-1	Installation of all sensors in the City of El Segundo
L-1	Installation and testing of all communications cables (from RIO to PLC site) in the City of El Segundo
L-3	Calibration and testing of all sensors in the City of El Segundo
ACCEPTANCE CRITERIA:	<p>Public Works has received a complete set of functioning sensors/transducers and cables, including the following:</p> <ul style="list-style-type: none"> * 11 submersible pressure transducers (Item No. 1*) * 330' extra submersible pressure transducer cable (Item No. 2) * 15 pressure transducers (Item No. 3) * 10 differential pressure transducers (Item No. 4) * 5 vault water level sensors (Item No. 5) * 7,000 LF communications cable (Item No. 31)

Task No. 5B – Sensor and Communication Cable Installation, Calibration, and Testing	
Item	Deliverable Description
L-1	Installation of all sensors in the City of Manhattan Beach
L-1	Installation and testing of all communications cables (from RIO to PLC site) in the City of Manhattan Beach
L-3	Calibration and testing of all sensors in the City of Manhattan Beach
ACCEPTANCE CRITERIA:	<p>Public Works has received a complete set of functioning sensors/transducers and cables, including the following:</p> <ul style="list-style-type: none"> * 21 submersible pressure transducers (Item No. 1) * 630' extra submersible pressure transducer cable (Item No. 2) * 13 pressure transducers (Item No. 3) * 12 differential pressure transducers (Item No. 4) * 8 vault water level sensors (Item No. 5) * 12,000 LF communications cable (Item No. 31)

Task No. 5C – Sensor and Communication Cable Installation, Calibration, and Testing	
Item	Deliverable Description
L-1	Installation of all sensors in the City of Hermosa Beach
L-1	Installation and testing of all communications cables (from RIO to PLC site) in the City of Hermosa Beach
L-3	Calibration and testing of all sensors in the City of Hermosa Beach
ACCEPTANCE CRITERIA:	<p>Public Works has received a complete set of functioning sensors/transducers and cables, including the following:</p> <ul style="list-style-type: none"> * 23 submersible pressure transducers (Item No. 1) * 690' extra submersible pressure transducer cable (Item No. 2) * 8 pressure transducers (Item No. 3) * 8 differential pressure transducers (Item No. 4) * 8 vault water level sensors (Item No. 5) * 12,000 LF communications cable (Item No. 31)

Task No. 5D – Sensor and Communication Cable Installation, Calibration, and Testing	
Item	Deliverable Description
L-1	Installation of all sensors in the City of Redondo Beach
L-1	Installation and testing of all communications cables (from RIO to PLC site) in the City of Redondo Beach
L-3	Calibration and testing of all sensors in the City of Redondo Beach
ACCEPTANCE CRITERIA:	<p>Public Works has received a complete set of functioning sensors/transducers and cables, including the following:</p> <ul style="list-style-type: none"> * 87 submersible pressure transducers (Item No. 1) * 2610' extra submersible pressure transducer cable (Item No. 2) * 49 pressure transducers (Item No. 3) * 46 differential pressure transducers (Item No. 4) * 39 vault water level sensors (Item No. 5) * 1 SCE Service Meter (Item No. 27) * 22,000 LF communications cable (Item No. 31)

Task No. 5E – Sensor and Communication Cable Installation, Calibration, and Testing	
Item	Deliverable Description
L-1	Installation of all sensors in the City of Torrance
L-1	Installation and testing of all communications cables (from RIO to PLC site) in the City of Torrance
L-3	Calibration and testing of all sensors in the City of Torrance
ACCEPTANCE CRITERIA:	<p>Public Works has received a complete set of functioning sensors/transducers and cables, including the following:</p> <ul style="list-style-type: none"> * 9 submersible pressure transducers (Item No. 1) * 270' extra submersible pressure transducer cable (Item No. 2) * 5 pressure transducers (Item No. 3) * 5 differential pressure transducers (Item No. 4) * 5 vault water level sensors (Item No. 5) * 5,000 LF communications cable (Item No. 31)

Task No. 6A – Automated Data Acquisition and Control System Installation, Programming and Testing	
Item	Deliverable Description
M-1	Installation and wiring of RIO(s) and appurtenances in the City of El Segundo (El Segundo Yard, WBMWD)
M-3	Programming of RIO(s) and appurtenances in the City of El Segundo (El Segundo Yard, WBMWD)
M-3	Testing, documentation, and demonstration of functionality for RIO(s) and appurtenances in the City of El Segundo (El Segundo Yard, WBMWD)
ACCEPTANCE CRITERIA:	<p>Public Works has received a complete and functioning RIO system, including the following:</p> <ul style="list-style-type: none"> * 20 1/2" cable connectors (Item No. 6) * 40 Polyflo needle valve 90d 1/4" male (Item No. 7) * 40 Polyflo 1/4" tees (Item No. 8) * 80 Polyflo 1/4" male adapters (Item No. 9) * 80 Polyflo 1/4" bulkhead connectors (Item No. 10) * 360 LF of Polyflo 1/4" tubing (Item No. 11) * 40 Brass 1/4" tee NPT (Item No. 12) * 76 Brass 1/4" close nipple NPT (Item No. 13) * 4 instrument enclosure (Item No. 14) * 4 Instrument enclosures (Item No. 15) * 7 RIO and rack, with appropriate I/O modules (Item No. 16) * 4 MTA 20 Transient protection devices (Item No. 20) * 4 TS4000 radio modem (Item No. 21) * 4 Modem adapter (Item No. 22) * 4 Cable BNC to N-Type - short (Item No. 23) * 4 RF Surge protector (Item No. 24) * 1 Standard omnidirectional antenna (Item No. 25) * 3 Yagi Antenna (Item No. 25) * 40 LF antenna cable for RG-8 N-Type to N-Type (Item No. 26) * 1 RIO and Workstation at WBMWD (Item No. 17) * 1 RIO and Workstation at ESY (Item No. 28) * 1 Hoplink radio and enclosure at WB28A (Item No.29) * 1 Hoplink at ESY (Item No. 29A) * 1 Telephone modem (Item No. 20) * All supporting documentation

Task No. 6B – Automated Data Acquisition and Control System Installation, Programming and Testing	
Item	Deliverable Description
M-1	Installation and wiring of RIO(s) and appurtenances in the City of Manhattan Beach
M-3	Programming of RIO(s) and appurtenances in the City of Manhattan Beach
M-3	Testing, documentation, and demonstration of functionality for remote PLC(s) and appurtenances in the City of Manhattan Beach
ACCEPTANCE CRITERIA:	<p><u>Public Works has received a complete and functioning RIO system, including the following:</u></p> <ul style="list-style-type: none"> * 19 1/2" cable connectors (Item No. 6) * 36 Polyflo needle valve 90d 1/4" male (Item No. 7) * 36 Polyflo 1/4" tees (Item No. 8) * 72 Polyflo 1/4" male adapters (Item No. 9) * 72 Polyflo 1/4" bulkhead connectors (Item No. 10) * 330 LF of Polyflo 1/4" tubing (Item No. 11) * 36 Brass 1/4" tee NPT (Item No. 12) * 67 Brass 1/4" close nipple NPT (Item No. 13) * 5 instrument enclosure (Item No. 14) * 3 Instrument enclosures (Item No. 15) * 8 RIO and rack, with appropriate I/O modules (Item No. 16) * All supporting documentation

Task No. 6C – Automated Data Acquisition and Control System Installation, Programming and Testing	
Item	Deliverable Description
M-1	Installation and wiring of RIO(s) and appurtenances in the City of Hermosa Beach
M-3	Programming of RIO(s) and appurtenances in the City of Hermosa Beach
M-3	Testing, documentation, and demonstration of functionality for RIO(s) and appurtenances in the City of Hermosa Beach
ACCEPTANCE CRITERIA:	<p>Public Works has received a complete and functioning RIO system, including the following:</p> <ul style="list-style-type: none"> * 16 1/2" cable connectors (Item No. 6) * 24 Polyflo needle valve 90d 1/4" male (Item No. 7) * 24 Polyflo 1/4" tees (Item No. 8) * 48 Polyflo 1/4" male adapters (Item No. 9) * 48 Polyflo 1/4" bulkhead connectors (Item No. 10) * 240 LF of Polyflo 1/4" tubing (Item No. 11) * 24 Brass 1/4" tee NPT (Item No. 12) * 4 Brass 1/4" close nipple NPT (Item No. 13) * 8 instrument enclosure (Item No. 14) * 8 RIO and rack, with appropriate I/O modules (Item No. 16) * All supporting documentation

Task No. 6D – Automated Data Acquisition and Control System Installation, Programming and Testing	
Item	Deliverable Description
M-1	Installation and wiring of RIO(s) and appurtenances in the City of Redondo Beach
M-3	Programming of RIO(s) and appurtenances in the City of Redondo Beach
M-3	Testing, documentation, and demonstration of functionality for RIO(s) and appurtenances in the City of Redondo Beach
ACCEPTANCE CRITERIA:	<p>Public Works has received a complete and functioning RIO system, including the following:</p> <ul style="list-style-type: none"> * 87 1/2" cable connectors (Item No. 6) * 153 Polyflo needle valve 90d 1/4" male (Item No. 7) * 153 Polyflo 1/4" tees (Item No. 8) * 306 Polyflo 1/4" male adapters (Item No. 9) * 306 Polyflo 1/4" bulkhead connectors (Item No. 10) * 1440' LF of Polyflo 1/4" tubing (Item No. 11) * 153 Brass 1/4" tee NPT (Item No. 12) * 276 Brass 1/4" close nipple NPT (Item No. 13) * 9 instrument enclosure (Item No. 14) * 30 Instrument enclosures (Item No. 15) * 20 RIO and rack, with appropriate I/O modules (Item No. 16) * All supporting documentation

Task No. 6E – Automated Data Acquisition and Control System Installation, Programming and Testing	
Item	Deliverable Description
M-1	Installation and wiring of Redondo Yard PLC and appurtenances
M-3	Programming of Redondo Yard PLC and appurtenances
M-3	Testing and demonstration of functionality for Redondo Yard PLC and appurtenances
ACCEPTANCE CRITERIA:	<p>Public Works has received a complete and functioning PLC system, including the following:</p> <ul style="list-style-type: none"> * 1 PLC and Workstation (Item No. 30) * Appropriate PLC software (Item No. 18) * 2 Telephone modems (Item No. 20)

Task No. 6F – Automated Data Acquisition and Control System Installation, Programming and Testing	
Item	Deliverable Description
M-1	Installation and wiring of RIO(s) and appurtenances in the City of Torrance
M-3	Programming of RIO(s) and appurtenances in the City of Torrance
M-3	Testing, documentation, and demonstration of functionality for RIO(s) and appurtenances in the City of Torrance
ACCEPTANCE CRITERIA:	<p>Public Works has received a complete and functioning RIO system, including the following:</p> <ul style="list-style-type: none"> * 6 1/2" cable connectors (Item No. 6) * 9 Polyflo needle valve 90d 1/4" male (Item No. 7) * 9 Polyflo 1/4" tees (Item No. 8) * 18 Polyflo 1/4" male adapters (Item No. 9) * 18 Polyflo 1/4" bulkhead connectors (Item No. 10) * 90 LF of Polyflo 1/4 " tubing (Item No. 11) * 9 Brass 1/4" tee NPT (Item No. 12) * 15 Brass 1/4" close nipple NPT (Item No. 13) * 3 instrument enclosure (Item No. 15) * 2 RIO and rack, with appropriate I/O modules (Item No. 16) * All supporting documentation

Task No. 6G – Automated Data Acquisition and Control System Installation, Programming and Testing	
Item	Deliverable Description
M-1	Installation of alarm management software on the server at LACDPW Headquarter Water Resource Division Blueroom
M-2.7	Upgrade server license at LACDPW Headquarter Water Resource Division Blueroom
ACCEPTANCE CRITERIA:	<p>Public Works has received a complete and functioning ADATS system, including the following:</p> <ul style="list-style-type: none"> * 3 Client licenses (Item No. 19) * 1 Alarm management software (Item No. 19) * 1 Telephone Modem (Item No. 20)

Task No. 7 –Coordination with LACDPW ITD, Testing, and Programming	
Item	Deliverable Description
M-2	Coordination with Public Works' Information Technology Division (ITD) to connect the Redondo Yard PLC to the existing T1 line to Headquarters
M-3	Testing and demonstration of connection functionality for Redondo Yard PLC and appurtenances
M-3	Headquarters software programming and application configuration to monitor and analyze the collected data
ACCEPTANCE CRITERIA:	The Public Works' Contract Manager has received confirmation from ITD that connection to T1 line is complete and contractor has demonstrated functionality of connection. Also, contractor has provided completed and functional application that is suitable for monitoring and analyzing the collected data and suitable for discussions at workshop number 1

Task No. 8 – O&M Manuals	
Item	Deliverable Description
N-1 to N-7	Operation and Maintenance Manuals (3 hard copies and 1 electronic copy in CD format) as structured and described in Scope of Work Section N
ACCEPTANCE CRITERIA:	The Public Works' Contract Manager has received and approved the Operation and Maintenance Manual (three hard copies and one electronic copy)

Task No. 9 – Workshop Memorandum	
Item	Deliverable Description
O	Memorandum detailing workshop objectives and goals
ACCEPTANCE CRITERIA:	The Public Works' Contract Manager has received memorandum and approved the proposed workshop objectives and goals

Task No. 10A – Technical Workshop Set No. 1	
Item	Deliverable Description
O-1	Technical Workshops, two minimum, to demonstrate ADATS functionality and confirm the direction of the interface and application development
O-1	Present/discuss graphical interface, software, operator screens, system integration programming, operation and maintenance, standards and functionality, and necessary simulations
ACCEPTANCE CRITERIA:	Public Works has received necessary workshop(s), confirmed that system functionality has been sufficiently demonstrated, confirmed planned operation and maintenance, confirmed interface screens and programming direction, and confirmed all other discussed issues

Task No. 10B – Technical Workshop Set No. 2	
Item	Deliverable Description
O-2	Technical Workshop(s), two minimum, to demonstrate system performance
O-2	Training for Public Works personnel on each instrument, network hardware function, and maintenance
O-2	Various jobsite visits to demonstrate hands-on use of programming, system components, and screen navigation
ACCEPTANCE CRITERIA:	Public Works has received necessary workshop(s), and confirmed that ample training and hands-on site visit demonstrations have been received to operate the ADATS effectively

Task No. 11 – System Integration	
Item	Deliverable Description
P	Integration of new system into existing HQ interface and server
ACCEPTANCE CRITERIA:	The Public Works' Contract Manager has received and approved documentation demonstrating the successful integration at Public Works Headquarters (Item No. 19)

Task No. 12 – Final Testing	
Item	Deliverable Description
Q	Final Testing
ACCEPTANCE CRITERIA:	<p>The Public Works' Contract Manager has received and approved (signed) contractor's tabular test sheet and all supporting documentation demonstrating the following:</p> <ul style="list-style-type: none"> * successful installation of all ADATS components * successful I/O verification * proper wiring * proper field signals * correct functionality of each component * successful instrument response to manual or automatic probing * successful data monitoring at each PLC, Redondo Yard, and Public Works Headquarters * ADATS is fully operational * any other reasonable requirements deemed necessary by Project Manager

Task No. 13 – Project Record Document	
Item	Deliverable Description
R-1	As-Built Drawings
R-2	Record Documents, Process Documentation, and Source Code
R-3	Updated Exhibit C, Hardware/Software Procurement List
ACCEPTANCE CRITERIA:	The Public Works' Contract Manager has received and approved both the As-Built record documentation and the Process Documentation

Task No. 14 – Final Acceptance, System Maintenance, and Support	
Item	Deliverable Description
S	Contractor's commitment to provide system maintenance and support for one full year from Final Acceptance per subsection S-2.
S	Final Acceptance
ACCEPTANCE CRITERIA:	The Public Works' Contract Manager shall receive in writing the contractor's commitment to provide maintenance and support for the required one year period. The Public Works' Contract Manager has received and approved all documentation that the items listed in Section S have been successfully completed and provided per this Scope of Work

EL:vt

P:\wrd\Ops\Seawater Barriers\WCBBP\Telemetry Phase II\Submittal Comments\Final\Final (including subm rev's)\Final V.4 - 2010_01_05_AED
Comments (w-o contact info)- FINAL SCOPE OF WORK PHASE II (SPECS) - E.J.L Subm, CIO Rev's.doc

Exhibit C

Exhibit C - Hardware / Software Procurement List

WCBBP TELEMETRY SYSTEM PHASE II

Item No.	Item	Unit of Measure	Quantity
1	SUBMERSIBLE PRESS TRANS (DRUCK PTX 1830)	EA	156
2	EXTRA SUBM PRESS TRANS CABLE (@ 30 ft. ea well)	LF	4530
3	PRESS TRANS (DRUCK PTX 510)	EA	90
4	DIFF PRESS TRANS (DRUCK PTX 120/2WL)	EA	81
5	WATER SENSOR (LITTLE GIANT RS-5-LL)	EA	65
6	CABLE CONN 1/2"	EA	148
7	POLYFLO NEEDLE VALVE 90° 1/4" MALE	EA	262
8	POLYFLO TEE 1/4"	EA	262
9	POLYFLO MALE ADAPTER 1/4"	EA	524
10	POLYFLO BULKHEAD CONNECTOR 1/4"	EA	524
11	POLYFLO TUBING 1/4"	LF	2460
12	BRASS TEE 1/4" NPT	EA	262
13	BRASS CLOSE NIPPLE 1/4" NPT	EA	474
14	ENCLOSURE 24 X 24 X 8 W/ BACK PANEL	EA	16
15	ENCLOSURE 16 X 16 X 6 W/ BACK PANEL	EA	50
16	REMOTE I/O MODULES AT WELL SITES	EA	45
17	REMOTE I/O MODULE AND WORK STATION AT WBMWD	EA	1
18	PLC SOFTWARE (Lump Sum), PROGRAMMING, AND COMMISSIONING	LS	1
19	OPERATOR INTERFACE AND HQ SERVER SOFTWARE (Lump Sum) AND PROGRAMMING	LS	1
20	TELEPHONE MODEM	EA	4
21	RADIO MODEM TS4000	EA	4
22	SERIAL SERVER	EA	4
23	CABLE BNC TO N-TYPE (SHORT)	EA	4
24	RF SURGE PROTECTOR	EA	4
25	OMNI/YAGI ANTENNA WITH POLE	EA	4
26	ANTENNA CABLE FOR RG-8 (N-TYPE TO N-TYPE, 25FT+)	LF	350
27	SCE SERVICE METER	EA	2
28	REMOTE I/O MODULE AND WORK STATION AT EL SEGUNDO YARD	EA	1
29	HOPLINK RADIO AND ENCLOSURE AT WB28A	EA	1
30	PLC AND WORK STATION AT REDONDO YARD	EA	1
31	COMMUNICATIONS CABLES (F.O.)	LF	58,000
32	POWER AND CONTROL CABLES	LF	175,000
33	SIGNAL CABLES	LF	64,000
34	TRENCH AT ESY	LF	150
35	CONDUITS	LF	2,400
36	PULLBOX AT RY	EA	1

Exhibit D

EXHIBIT D

MAINTENANCE & SUPPORT

I. INTRODUCTION

Capitalized terms used in this Exhibit D (Maintenance & Support) without definition shall have the meanings given to such terms in the base document of the Agreement.

II. MAINTENANCE SERVICES

Contractor shall provide any and all Services necessary to correct each Deficiency occurring from time to time with respect to all or any component of the ADATS, including the Software, Interfaces, and/or Hardware (collectively, "Maintenance Services"). Without limiting the foregoing, Maintenance Services include (a) repairing the Software, Interfaces, and/or Hardware, (b) providing Updates to the Software and Interfaces constituting software and (c) replacing the Hardware and Interfaces constituting hardware, to the extent that Contractor has attempted to repair such Hardware and Interfaces, and such repair failed to restore such Hardware and Interfaces to the applicable requirements and specifications set forth in the Scope of Work within the time periods required by this Exhibit. Without limiting the foregoing and in addition to the other terms of the Agreement, the following shall apply to Contractor's performance of Maintenance Services:

- A. County's Project Manager may submit a request for Maintenance Services in person or via telephone, pager, facsimile, mail, electronic mail (email) or any other reasonable means.
- B. Contractor shall provide Maintenance Services from Contractor's business premises and/or from Department facilities, Monday through Friday from 7 A.M. to 6 P.M. (Pacific Time) provided Contractor shall be available via electronic mail or pager during all other hours to respond to a request for Maintenance Services. Contractor shall contact County Project Director or County Project Manager within two (2) hours of receipt of a request for Maintenance Services to acknowledge the request.
- C. Contractor shall maintain a log of all Deficiencies reported by Department or otherwise discovered by Contractor, together with a brief description of the resolution of such Deficiency. Promptly after resolution of each Deficiency, to the extent known or reasonably knowable, Contractor shall provide Department with a description of the cause of such Deficiency, together with avoidance procedures for such Deficiency.

- D. Department shall endeavor reasonably to provide Contractor with information and assistance necessary to detect, simulate, reproduce, and correct Deficiencies, but regardless of the level of assistance provided by Department, Contractor, solely, is responsible for the timely correction of Deficiencies.
- E. Contractor shall provide and install updates to the Software and Interfaces constituting software, including WinCC updates, as needed to correct any Deficiencies to the Software or Interfaces constituting software, as the case may be. Any revised Documentation and/or Source Code that corresponds to the updates shall be delivered to County pursuant to Task 13 (Project Record Documents) of the Scope of Work.
- F. Contractor shall provide Maintenance Services for Third Party Software that is deemed to be part of the Software, as described on Paragraph 2 (Third-Party Software License and Warranties) of Exhibit __, regardless of whether the license to such Third Party Software is obtained through Contractor, or is obtained through an extension of an existing Department license with such Third Party Software provider.
- G. If Department submits a request for Maintenance Services, Contractor shall diagnose the Deficiency and determine whether it is caused by the Software, Interfaces, and/or Hardware. Such diagnosis and determination shall be included in the Maintenance Services hereunder and provided without additional charge, even if the condition is ultimately determined to be caused by operating system software, hardware, or user error and not by the Software, Interfaces, or Hardware.
- H. Contractor shall perform Maintenance Services to correct any failure of the ADATS to remedy Deficiencies such that the ADATS operate in accordance with requirements and specifications set forth in the Scope of Work. With respect to each Deficiency, such Maintenance Services shall be completed two (2) calendar days from the earlier of (a) County's report of such Deficiency or (b) Contractor otherwise discovering such Deficiency. Contractor shall notify in writing to County Project Director or County Project Manager that remedies to correct Deficiencies have been performed. No Deficiency shall be deemed remedied until all necessary remedial action has been completed and approved in writing by County Project Director.
- I. Disagreements between Department and Contractor regarding the Maintenance Services shall be resolved through the Dispute Resolution Procedures set forth in the Agreement.

Exhibit E

TASK/DELIVERABLE ACCEPTANCE CERTIFICATE

(Name and Address)		TRANSMITTAL DATE
TASK/DELIVERABLE ACCEPTANCE CERTIFICATE Capitalized terms used in this Task/Deliverable Acceptance Certificate without definition have the meanings given to such terms in the body of the Agreement referenced herein.		AGREEMENT NUMBER
		TITLE
FROM:	TO:	
_____ Contractor Project Director (Signature Required)		
Contractor hereby certifies to County that as of the date of this Task/Deliverable Acceptance Certificate, it has satisfied all conditions precedent in the Agreement, including the Exhibits thereto, to the completion of the Tasks and delivery of the Deliverables set forth below, including satisfaction of the completion criteria applicable to such Tasks and Deliverables and County's approval of the Work performed in connection with the achievement of such Task. Contractor further represents and warrants that the Work performed in respect of such Tasks and Deliverables has been completed in accordance with the Agreement, including Exhibit A (Scope of Work). County's approval and signature constitutes an acceptance of the Tasks and Deliverables listed below.		
TASK DESCRIPTION (including Task as set forth in the Statement of Work)	DELIVERABLES (including Deliverable numbers as set forth in the Statement of Work)	
Comments: 		
Attached hereto is a copy of all supporting documentation required pursuant to the Agreement, including Exhibit A (Scope of Work), together with any additional documentation reasonably requested by County.		
County Acceptance: NAME _____ SIGNATURE _____ DATE _____ County Project Director		

Distribution:

Original – Financial Services

Copy 1 - Contractor

Copy 2 - County Project Manager

Copy 3 - DPW Master Contract File

Exhibit F



Exhibit F

Third Party Software List

Siemens SIMATIC WinCC 6.2 3 Licenses Single User (for new workstations)

Microsoft Windows XP Pro SP3 3 Licenses Single User (for new workstations)

Wonderware SCADAalarm 6.0 1 License for existing workstation in Blue Room.



Exhibit G

WCBBP RELEVANT SOFTWARE AGREEMENT DEFINITIONS & PROVISIONS

A. DEFINITIONS

"ADATS" means generally the Automatic Data Acquisition and Telemetry System and more specifically all or any component of the Software, Interfaces, hardware, and/or services provided by or on behalf of Consultant under this AGREEMENT. Once completed and delivered by Consultant in accordance with the terms hereof, ADATS will collect, store, analyze, transmit, and graphically present status information on existing injection and groundwater conditions within the West Coast Basin Barrier Project.

"COUNTY Project Director" has the meaning set forth in Paragraph 1 (COUNTY Project Director) of this Exhibit G.

"Deficiency" means, as applicable to any work provided by or on behalf of Consultant to COUNTY: any malfunction, error, or defect in the design, development, or implementation of work; any error or omission, or deviation from the requirements, specifications or mutually agreed upon industry standards, or any other malfunction or error, including the provision of negligent workmanship, which results in the ADATS, in whole or in part, not performing in accordance with the requirements and specifications, including those set forth in the Scope of Work and Exhibit D (Maintenance & Support), as determined by COUNTY Project Director, in COUNTY Project Director's sole discretion. Unless the context otherwise clearly requires, when used in this AGREEMENT, the term "deficiency" has the same meaning as the term "Deficiency".

"Final Acceptance" has the meaning set forth in Paragraph 3 (Final Acceptance of ADATS) of this Exhibit G.

"Final Acceptance Date" has the meaning set forth in Paragraph 3 (Final Acceptance of ADATS) of this Exhibit G.

"Interfaces" means the software and hardware mechanisms which allow the transfer of electronic data or software commands between computer systems, computer programs, or computer program modules from time to time provided by or on behalf of Consultant in furtherance of its obligations under this AGREEMENT, including Interfaces described in the Scope of Work and/or any Change Order or Amendment. Unless otherwise expressly noted, "Interfaces" constituting software include both object code and Source Code (as defined below) versions of such Interfaces.

"Maintenance Services" has the meaning given to such term in Exhibit D (Maintenance & Support).

"Software" means any and all software applications, programming, upgrades, updates, enhancements, revisions, new version releases, improvements, corrections, bug fixes,

patches, and modifications, including Third-Party Software, from time to time conceived, created, and/or developed by or on behalf of Consultant in furtherance of its obligations under this AGREEMENT, including the Software described in the Scope of Work, Exhibit C (Hardware/Software Procurement List), and/or any Change Order or Amendment. Unless otherwise expressly noted, "Software" includes both object code and Source Code versions of such Software.

"Source Code" means computer programming code in human readable form that is not suitable for machine execution without the intervening steps of interpretation or compilation, including the tools and developer kits that created, and enable creation of, such code.

"Third-Party Software" has the meaning set forth in Paragraph 2 (Third-Party Software License and Warranties) of this Exhibit G.

"WinCC" means the "SIMATIC WinCC Version 6.0" software program, manufactured by Siemens AG. WinCC is further described in the Scope of Work.

B. PROVISIONS

1. COUNTY Project Director

COUNTY Project Director for this AGREEMENT shall be the following person or such person's designee:

Mr. Adam Walden
County of Los Angeles Department of Public Works
900 South Fremont Avenue
Alhambra, CA 91803
Telephone: (626) 458-6308
Fax: (626) 979-5309
e-mail: awaldencadpw.lacounty.gov

COUNTY will notify Consultant, in writing, of any change in the name or address of COUNTY Project Director.

2. Third-Party Software License and Warranties

Notwithstanding Paragraph 8 of the Agreement, ownership of Third-Party Software identified on Exhibit F (Third-Party Software) remains with the applicable third party manufacturer. Consultant hereby grants a perpetual and irrevocable license to use, copy, and modify the object code versions of the Third Party Software, other than the WinCC, to which COUNTY already has a preexisting license. Upon the Final Acceptance Date, such license shall be a fully-paid license.

Consultant hereby represents and warrants that none of the Software other than the Third-Party Software is owned by third-parties. Consultant represents and warrants that it has not modified and shall not modify, nor does Consultant have any need to modify, Third-Party Software in order for the ADATS to fully perform in accordance with the requirements and specifications. Consultant represents and warrants that all Third-Party Software is provided to COUNTY in the same unmodified form as received by Consultant from the applicable third-party. Consultant represents and warrants that Third-Party Software shall, together with the remainder of the ADATS, fully satisfy all of the requirements and specifications without the need for any modification of Third-Party Software by Consultant or otherwise. Consultant represents and warrants that COUNTY does not need any further license rights with respect to the Third Party Software, including WinCC, other than the license rights described in this Paragraph 2, in order for Consultant to fully complete and deliver the ADATS as required hereunder.

COUNTY acknowledges that it may have to execute certain third-party license agreements in respect of such Third-Party Software. These third-party license agreements shall be at no additional cost to COUNTY. To the extent that any such third-party license agreement conflicts with this AGREEMENT or in any way restricts COUNTY'S full use and enjoyment of the ADATS as contemplated herein, Consultant shall take all necessary action and pay all sums required for COUNTY to fully enjoy all the rights and benefits in respect of the ADATS granted under this AGREEMENT. Consultant shall promptly and at no cost to COUNTY, either: (a) obtain a license from the appropriate third-party, which shall enable Consultant to modify such Third-Party Software, and Consultant shall provide all necessary modifications, or (b) to the extent that Consultant is unable to obtain such a license, provide an update or alternative solution, which is functionally equivalent, in the sole determination of COUNTY Project Director, in lieu of modifying such Third-Party Software.

3. Final Acceptance of ADATS

Consultant shall achieve "Final Acceptance" of the ADATS upon successful completion of all the following: (a) its successful completion and delivery of Work and testing protocols under the Scope of Work associated with the Final Acceptance (b) successful implementation of all functions and features of all such Work and successful achievement of all testing protocols have been verified by COUNTY; (c) COUNTY Project Director has provided Consultant with written approval, as evidenced by COUNTY Project Director's countersignature on all applicable Task/Deliverable Acceptance Certificates, of all such Work (other than Task (14) Deliverable No. (S) of the Scope of Work, which Task/Deliverable Acceptance Certificate is referenced in clause (e) below); (d) all such Work has been provided, installed, and operates in COUNTY'S production environment with no Deficiencies for no less than 60 consecutive calendar days; and (e) COUNTY Project Director has provided Consultant with written approval, as evidenced by COUNTY Project Director's countersignature on the applicable task/Deliverable Acceptance Certificate, of Consultant's achievement of Final Acceptance (Task 14; Deliverable No. (S) of the Scope of Work) (the date of satisfaction of the foregoing, including written approval thereof shall be referred to as the "Final Acceptance Date").

CIO ANALYSIS

WEST COAST BASIN BARRIER PROJECT TELEMTRY SYSTEM PHASE 2 AUTOMATED DATA ACQUISITION AND TELEMTRY SYSTEM CONSULTANT SERVICES AGREEMENT

CIO RECOMMENDATION: ☒ APPROVE ☐ APPROVE WITH MODIFICATION
☐ DISAPPROVE

Contract Type:

☒ New Contract ☐ Contract Amendment ☐ Contract Extension
☐ Sole Source Contract ☐ Hardware Acquisition ☐ Other

New/Revised Contract Term: Base Term: 2 Yrs # of Option Yrs 1 Yr

Contract Components:

☒ Software ☒ Hardware ☒ Telecommunications
☒ Professional Services

Project Executive Sponsor: Mark Pestrella, Deputy Director, Public Works

Budget Information :

Y-T-D Contract Expenditures	\$ 0
Requested Contract Amount	\$3,410,000
Aggregate Contract Amount	\$3,410,000

Project Background:

Yes	No	Question
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is this project legislatively mandated?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is this project subvented? If yes, what percentage is offset?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is this project/application applicable to (shared use or interfaced) other departments? If yes, name the other department(s) involved?

Strategic Alignment:

Yes	No	Question
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is this project in alignment with the County of Los Angeles Strategic Plan?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is this project consistent with the currently approved Department Business Automation Plan?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the project's technology solution comply with County of Los Angeles IT Directions document?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the project technology solution comply with preferred County of Los Angeles IT standards?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	This contract and/or project and its milestone deliverables must be entered into the Information Technology Tracking System (ITTS).

Project/Contract Description:

The Department of Public Works (DPW) is requesting Board approval of the proposed Agreement with Moore Electrical Contracting, Inc., to install and implement a groundwater monitoring system, the Automated Data Acquisition and Telemetry System (ADATS), as a second phase of the West Coast Basin Barrier Project (WCBBP), initiated via a separate Agreement in March, 2009. The WCBBP will provide monitoring of barrier operations for groundwater protection against seawater intrusion. The ADATS is used to remotely manage operations of the WCBBP, and will store, analyze and present status information on operational conditions at multiple wells. The proposed Agreement includes a one-year maintenance and support period following final testing and system acceptance.

The technology aspects of the proposed Agreement include installation of remote telemetry equipment (radio and digital modems), a communications controller and related input/output modules, three workstations, and 'off the shelf' software to manage the remote monitoring activities. The information technology (IT) component of this Agreement is only 6% (\$204,134) of the overall Agreement budget of \$3,410,000.

Background:

Development of the ADATS was split into two phases. The first phase, completed in April 2010, included construction and installation of conduit and pull boxes and new observation well vaults. Services to be provided via this Agreement will include implementation of the technologies referenced above, as well as installation of cables, instrumentation, and sensors in the facilities constructed in Phase 1 of the project.

Project Justification/Benefits:

The ADATS will utilize telemetry (radio) technologies to improve the efficiency of the WCBBP and will support remote monitoring of underground drinking water aquifers. The monitoring capabilities will yield long-term operational savings in both cost and time.

Project Metrics:

Project success will be achieved when the new ADATS meets defined acceptance criteria, and has remained fully operational, without deficiencies, for 60 days. Also, the majority of work performed under the Agreement will be based on fixed price deliverables, which is an effective performance metric.

Impact On Service Delivery Or Department Operations, If Proposal Is Not Approved:

DPW stated that the WCBBP prevents seawater from contaminating the local potable water supply. Therefore, obtaining real-time data on the barrier conditions is critical to ensuring a timely response to threats to water quality and capacity. If the ADATS is not implemented, this work will continue to be performed manually which is inefficient and costly.

Alternatives Considered:

DPW decided to leverage existing knowledge and experience gained via a very similar project completed in 2008, the Alamitos Barrier Project (ABP). Additionally, they have required the new ADATS to be developed using the same off-the-shelf software that is already in place for the ABP. The CIO supports this approach as the most cost effective solution.

Project Risks:

Ensuring timely completion of major milestones is the only identified risk.

Risk Mitigation Measures:

The Statement of Work for this Project includes sufficient controls to effectively manage timely completion of the ADATS.

The County Information Security Officer (CISO) reviewed the proposed Agreement and did not identify any risks or issues.

Financial Analysis:

The amount for the Agreement is \$3,410,000 and financed through DPW's Fiscal Year 2009-2010 Flood Control District Budget; there will be no impact to the County General Fund. The following table details the IT and non-IT portions of the overall Agreement amount:

Description	Amount
Information Technology (IT) Components	
Software Licensing & Configuration	\$ 32,411
Hardware*	132,901
Training and One Year Maintenance	38,822
Total – IT	204,134
Non IT Components	2,895,866
Contingency	310,000
Total – Agreement	\$3,410,000

*Modems and remote input/output modules, (3) work stations, (1) programmable logic controller

CIO Concerns:

None

CIO Recommendations:

The CIO recommends approval of this Agreement.

CIO Recommendations:

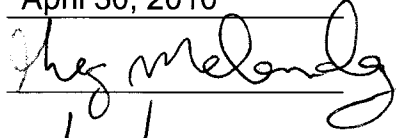
The CIO recommends approval of this Agreement.

CIO APPROVAL

Date Received: April 19, 2010

Prepared by: Janette Parker

Date: April 30, 2010

Approved: 

Date: 5/20/2010

ENCLOSURE C

Award information has not been added at this time.

Bid Information

Bid Number : AED0000047

Bid Title : West Coast Basin Barrier Project Telemetry System Phase 2 Automated Data Acquisition and Telemetry System

Bid Type : Construction

Department : Public Works

Commodity : TELEPHONE SERVICES INCLUDES INSTALLATION, MOVES, CHANGES, ADDS, PROGRAMMING, TRAINING, ETC.

Open Date : 1/28/2010

Closing Date : 2/25/2010 5:00 PM

Notice of Intent to Award : [View Detail](#)

Bid Amount : N/A

Bid Download : Not Available

Bid Description : The Department of Public Works seeks to improve the efficiency of the West Coast Basin Barrier Project by installing a state of the art Automated Data Acquisition and Telemetry System. Data is to be fed to a Public Works control facility via a primary communication path supported by backup paths where economically feasible using telephone, radio, or satellite. The data management program will be capable of collecting, storing, analyzing, and graphically presenting status information. Implementation of a reliable data collection and remote monitoring system will improve Public Works' barrier operations by enabling real time visibility and direction of injection operations. The data telemetry path will include a data-link to the West Basin Municipal Water District for their use in monitoring flow parameters on water supplied to Public Works' water distribution line from the West Basin Municipal Recycling Plant.

Public Works anticipates that the final completion of this system will provide a robust and reliable product which will provide Public Works with the ability to remotely monitor existing injection and groundwater conditions within the WCBBP. The system will have scalable properties which will allow Public Works to remotely control and augment system operations as determined in the future.

The objective of this solicitation is to select a firm that is best qualified to provide the requested services.

NOTE: THE RFP AND ATTACHMENTS ARE NOT AVAILABLE ELECTRONICALLY.

Requests for copies of the RFP should be directed to the contract administrator listed below via email or fax, and said documents will be mailed to you at first opportunity.

Contact Name : Grace Stohs

Contact Phone# : (626) 979-5311 Ext: fax

Contact Email : gstohs@dpw.lacounty.gov

Last Changed On : 1/28/2010 12:47:01 PM

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